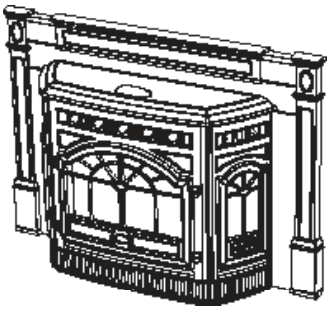
QUADRA-FIRE®

CASTILE PELLET INSERT

Owner's Manual
Installation and Operation

Model:
CASTILEI-MBK
CASTILEI-PMH
CASTILEI-CSB
CASTILEI-CWL



Tested and Listed by O-T-L Portland Oregon USA
C US
OMNI-Test Laboratories. Inc.

member of
Pellet Fuels Institute
www.pelletheat.org

NOTICE

SAVE THESE INSTRUCTIONS

- Important operating and maintenance instructions included.
- Read, understand and follow these instructions for safe installation and operation.
- Leave this manual with party responsible for use and operation.

⚠ WARNING

Please read this entire manual before installation and use of this pellet fuel-burning room heater. Failure to follow these instructions could result in property damage, bodily injury or even death.

- Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.
- Do not overfire - If any external part starts to glow, you are overfiring. Reduce feed rate. Overfiring will void your warranty.
- Comply with all minimum clearances to combustibles as specified. Failure to comply may cause house fire.

⚠ WARNING

HOT SURFACES!

Glass and other surfaces are hot during operation AND cool down.

Hot glass will cause burns.

- Do not touch glass until it is cooled
- NEVER allow children to touch glass
- Keep children away
- CAREFULLY SUPERVISE children in same room as fireplace.
- Alert children and adults to hazards of high temperatures.
  High temperatures may ignite clothing or other flammable materials.
- Keep clothing, furniture, draperies and other flammable materials away.

CAUTION

Tested and approved for wood pellets and shelled field corn fuel only. Burning of any other type of fuel voids your warranty.

CAUTION

Check building codes prior to installation.

- Installation MUST comply with local, regional, state and national codes and regulations.
- Contact local building or fire officials about restrictions and installation inspection requirements in your area.

Congratulations

and Welcome to the Quadra-Fire Family!

Hearth & Home Technologies welcomes you to our tradition of excellence! In choosing a Quadra-Fire appliance, you have our assurance of commitment to quality, durability, and performance.

This commitment begins with our research of the market, including 'Voice of the Customer' contacts, ensuring we make products that will satisfy your needs. Our Research and Development facility then employs the world's most advanced technology to achieve the optimum operation of our stoves, inserts and fireplaces. And yet we are old-fashioned when it comes to craftsmanship. Each unit is meticulously fabricated and surfaces are hand-finished for lasting beauty and enjoyment. Our pledge to quality is completed as each model undergoes a quality control inspection.

We wish you and your family many years of enjoyment in the warmth and comfort of your hearth appliance. Thank you for choosing Quadra-Fire.

NOTE: Consult insurance carrier, local building inspector, fire officials or authorities having jurisdiction over restrictions, installation inspection and permits.

LOCATION: Riveted to appliance behind left side panel. Remove cast side and swing label forward

Test Lab & Report No. | Model | Serial Number

SAFETY LABEL / ÉTIQUETTE DE SÉCURITÉ

Appareil de chauffage inséré de combustible solide/de type de boulettes. "Pour Usage Avec Bois Solide et Champ de Maïs égrené Seulement". Accepté dans l'installation dans les maisons mobiles. Cet appareil a été testé et enregistré pour l'usage dans les Maisons Mobiles en accord avec OAR 814-23-9000 jusqu'à 814-23-909.

Testé à: ASTM #1509-04, ULC S628-93, ULC/ORD-C1482-M1990 Room Heating. Pellet Burning Type, UM) 84-HUD POUR USAGE AVEC LES BOULETTES DE BOIS. OMNI-Test Laboratories, Inc. a déterminé que cet appareil se conforme avec la norme de l'Association Canadienne de normalisation (CSA) B415.1 ainsi que le Titre 40 du Code Fédéral de Régulations des États-Unis, partie 60, sous-partie AAA. Accréditations OMNI-Test Laboratories : Le Conseil Canadien des Normes (CCN/SCC), l'Institue des Standards Nationaux Américain (ANSI) et l'Agence de Protection Environnemental (EPA).

Puissance de Rendement: 30,000 BTU/HR

Puissance Électrique: 115 VAC, 60 Hz, Début 4.1 Amps, Courir 1.1 Amps,

Éloignez le fil électrique de l'appareil. Ne pas faire passer le fil électrique au dessus ou en dessous de l'appareil.

DANGER: Il y a risque de décharge électrique. Déconnectez le fil électrique de la prise de contact avant le service. Remplacez la vitre seulement avec une vitre céramique de 5 mm disponible chez votre fournisseur.

Pour allumer, monter la température du thermostat au dessus de la température de la pièce, le poêle s'allumera automatiquement. Pour éteindre, descendre la température du thermostat en dessous de la température de la pièce. Pour des instructions supplémentaires, référez vous au manuel du propriétaire. Gardez la porte d'ouverture et la porte des cendres fermées hermétiquement durant l'opération.

PRÉVENTION DES FEUX DE MAISON

Installez et utilisez en accord avec les instructions d'installation et d'opération du fabricant. Contactez le bureau de la construction ou le bureau des incendies au sujet des restrictions et des inspections d'installations dans votre voisinage. Ne pas obstruez l'espace en dessous de l'appareil.

AVIS - Pour Les Maisons Mobiles: Ne pas installer dans une chambre à coucher. Un noyau extérieur de combustion d'air doit être installé et ne doit pas être obstrué lorsque l'appareil est en usage. La structure intégrale du plancher, du plafond et des murs de la maison mobile doit être maintenue intacte.

Référez vous aux instructions du fabricant et des codes locaux pour les précautions requises pour passer une cheminée à travers un mur ou un plafond combustibles, et les compensations maximums.

Inspectez et nettoyez la cheminée fréquemment.

Ne pas connecter cet appareil à une cheminée servant un autre appareil.

Utilitsez le système de ventilation de 3 or 4 inch (76-102mm) de diametre de type "L" ou "PL".

Listed Solid Fuel Room Heater Pellet Type Insert. "For Use with Solid Wood Fuel and Shelled Field Corn Only". Also suitable for Mobile Home Installation. This appliance has been tested and listed for use in Manufactured Homes in accordance with OAR 814-23-9000 through 814-23-909.

Tested to: ASTM E1509-04, UL 628-93, ULC/ORD-C1482-M1990 Room Heating Pellet Burning Type, (UM) 84-HUD FOR USE ONLY WITH PELLETIZED WOOD. OMNI-Test Laboratories, Inc. has determined that this appliance complies with Canadian Standards Association (CSA) B415.1 and Title 40 of the U.S. Code of Federal Regulations, Part 60, SubPart AAA.OMNI-Test Laboratories Accrediations: The Standards Council of Canada, the American National Standards Institute, and the U.S. Environmental Protection Agency.

Input Rating: 30,000 BTU/HR.

Electrical Rating: 115 VAC, 60 Hz, Start 4.1 Amps, Run 1.1 Amps.

Route power cord away from unit. Do not route cord under or in front of appliance.

DANGER: Risk of electrical shock. Disconnect power supply before servicing.

Replace glass only with 5mm ceramic available from your dealer.

To start, set thermostat above room temperature, the stove will light automatically. To shutdown, set thermostat to below room temperature. For further instruction refer to owner's manual.

Keep viewing and ash removal doors tightly closed during operation.

PREVENT HOUSE FIRES

Install and use only in accordance with manufacturer's installation and operating instructions. Contact local building or fire officials about restrictions and inspection in our area.

WARNING: FOR MOBILE HOMES: Do not install appliance in a sleeping room. An outside combustion air inlet must be provided. The structural integrity of the mobile home floor, ceiling and walls must be maintained.

Refer to manufacturer's instructions and local codes for precautions required for passing chimney through a combustible wall or ceiling. Inspect and clean vent system frequently in accordance with manufacturer's instructions.

DO NOT CONNECT THIS UNIT TO A CHIMNEY SERVING ANOTHER APPLIANCE.

Use a 3 or 4 inch (76-102mm) diameter type "L" or "PL" venting system.

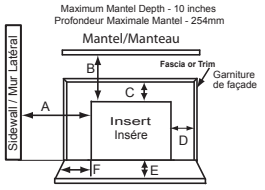
SAMPLE

MINIMUM CLEARANCES TO COMBUSTIBLE MATERIALS

Masonry or Zero Clearance

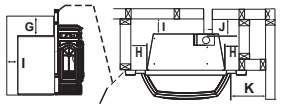
Dégagement de la maçonnerie ou Dégagement zéro

A	0 in.	0mm
B	12 in.	305mm
C	0 in.	0mm
D	0 in.	0mm
E	6 in.	152mm
F	6 in.	152mm



ESPACES LIBRES MINIMUM DES MATÉRIAUX COMBUSTIBLES:

AS A BUILT-IN UNIT **COMME APPAREIL INSÉRÉ**



0 in. Clearance To Exposed Section and Face Trim / Espace libre de 0 mm de la section exposée et de la garniture du devant.

G	2 in. (51mm)*	*Top Vent / Des Conduits Du Haut
	2.5 in. (64mm)**	**Rear Vent / Des Conduits Arrières
H	2 in. (51mm)	
I	4 in. (102mm)	
J	3 in. (76mm)	

SERIAL NO. / NUMÉRO DU SÉRIE

00702300000

[redacted]

QUADRA-FIRE

Castile Pellet Insert-B

Tested and Listed by OMNI-Test Laboratories, Inc. Portland Oregon USA

Report / Rapport #061-S-77d-6.2

Made in U.S.A. of US and imported parts.

États-Unis-d'Amérique par des pièces d'origine américaine et pièces importées.

Manufactured by: Fabriqué par:

HEARTH & HOME technologies

1445 Highway North, Colville, WA 99114

www.quadrafire.com

2010 2011 2012

JAN FEB MAR

APR MAY JUNE

JULY AUG SEPT

OCT NOV DEC

DO NOT REMOVE THIS LABEL
NE PAS ENLEVER L'ÉTIQUETTE

7022-121

Mfg By: Mfg Date

Safety Alert Key:

- ***DANGER!*** Indicates a hazardous situation which, if not avoided will result in death or serious injury.
- ***WARNING!*** Indicates a hazardous situation which, if not avoided could result in death or serious injury.
- ***CAUTION!*** Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.
- ***NOTICE:*** Indicates practices which may cause damage to the fireplace or to property.

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1 Listing and Code Approvals

A. Appliance Certification

MODEL:	Castile Pellet Insert-B
LABORATORY:	OMNI Test Laboratories, Inc
REPORT NO.	061-S-77d-6.2
TYPE:	Solid Fuel Room Heater/Pellet Fuel Burning Type Insert
STANDARD:	ASTM E1509-2004, ULC S628-93 and ULC/ORD-C1482-M1990 Room Heater Pellet Fuel Burning Type and (UM) 84-HUD, Mobile Home Approved

NOTE: This installation must conform with local codes. In the absence of local codes you must comply with the **ASTM E1509-2004, ULC S628-93, ULC/ORD-C-1482-M1990, (UM) 84-HUD**

The Castile Pellet Insrt by Quadra-Fire is exempt from Environmental Protection Agency certification under 40 CFR 60.531 y definition [Wood Heater (A) “Air to Fuel Ratio].

B. Mobile Home Approved

This appliance is approved for mobile home installations when not installed in a sleeping room and when an outside combustion air inlet is provided.

The structural integrity of the mobile home floor, ceiling, and walls must be maintained. The appliance must be properly grounded to the frame of the mobile home and use only listed pellet vent, Class “L” or “PL” connector pipe.

A Quadra-Fire Outside Air Kit must be installed in a mobile home installation.

Note: **This appliance is also approved for installation into a shop.**

C. Glass Specifications

This appliance is equipped with 5mm ceramic glass. Replace glass only with 5mm ceramic glass. Please contact your dealer for replacement glass.

D. Electrical Rating

115 VAC, 60 Hz, Start 4.1 Amps, Run 1.1 Amps

NOTE: Some generator or battery back-up systems may not be compatible with the micro-processor electronics on this appliance. Please consult the power supply manufacturer for compatible systems.

E. BTU & Efficiency Specifications

Particulate Emissions Rating:	0.7 grams/hr
***BTU Output:**	8,000 - 30,000 / hr
Heating Capacity:	up to 1,500 sq. ft. depending on climate zone
Hopper Capacity:	45 lbs
Fuel:	Wood Pellets or Shelled Corn
Shipping Weight:	252 lbs

*BTU output will vary, depending on the brand of fuel you use in your appliance. Consult your Quadra-Fire dealer for best results.

WARNING! Risk of Fire! *Hearth & Home Technologies disclaims any responsibility for, and the warranty and agency listing will be voided by the below actions.*

DO NOT:

- *Install or operate damaged appliance*
- *Modify appliance*
- *Install other than as instructed by Hearth & Home Technologies*
- *Operate the appliance without fully assembling all components*
- *Overfire*
- *Install any component not approved by Hearth & Home Technologies*
- *Install parts or components not Listed or approved.*
- *Disable safety switches*

Improper installation, adjustment, alteration, service or maintenance can cause injury or property damage.

For assistance or additional information, consult a qualified installer, service agency or your dealer.

NOTE: Hearth & Home Technologies, manufacturer of this appliance, reserves the right to alter its products, their specifications and/or price without notice.

Quadra-Fire is a registered trademark of Hearth & Home Technologies.

2 Getting Started

A. Design, Installation & Location Considerations

1. Appliance Location

NOTICE: *Check building codes prior to installation.*

- Installation MUST comply with local, regional, state and national codes and regulations.
- Consult insurance carrier, local building inspector, fire officials or authorities having jurisdiction over restrictions, installation inspection and permits.

It is a good idea to plan your installation on paper, using exact measurements for clearances and floor protection, before actually beginning the installation

Consideration must be given to:

- Safety, convenience, traffic flow
- Placement of the chimney and chimney connector.
- If you are not using an existing chimney, place the appliance where there will be a clear passage for a factory-built listed chimney through the ceiling and roof.
- Installing an optional outside air kit would affect the location of the vent termination.

Since pellet exhaust can contain ash, soot or sparks, you must consider the location of:

- Windows
- Air Intakes
- Air Conditioner
- Overhang, soffits, porch roofs, adjacent walls
- Landscaping, vegetation

When locating vent and venting termination, vent above roof line when possible.

Warning! Risk of Fire *Damaged parts could impair safe operation. Do NOT install damaged, incomplete or substitute components.*

CAUTION! *If burning shelled field corn, you must use approved venting specifically designed for corn to prevent corrosion or degradation. Follow the instructions from the venting manufacturer.*

NOTICE: *Locating the appliance in a location of considerable air movement can cause intermittent smoke spillage from appliance. Do not locate appliance near:*

- *Frequently open doors*
- *Central heat outlets or returns*

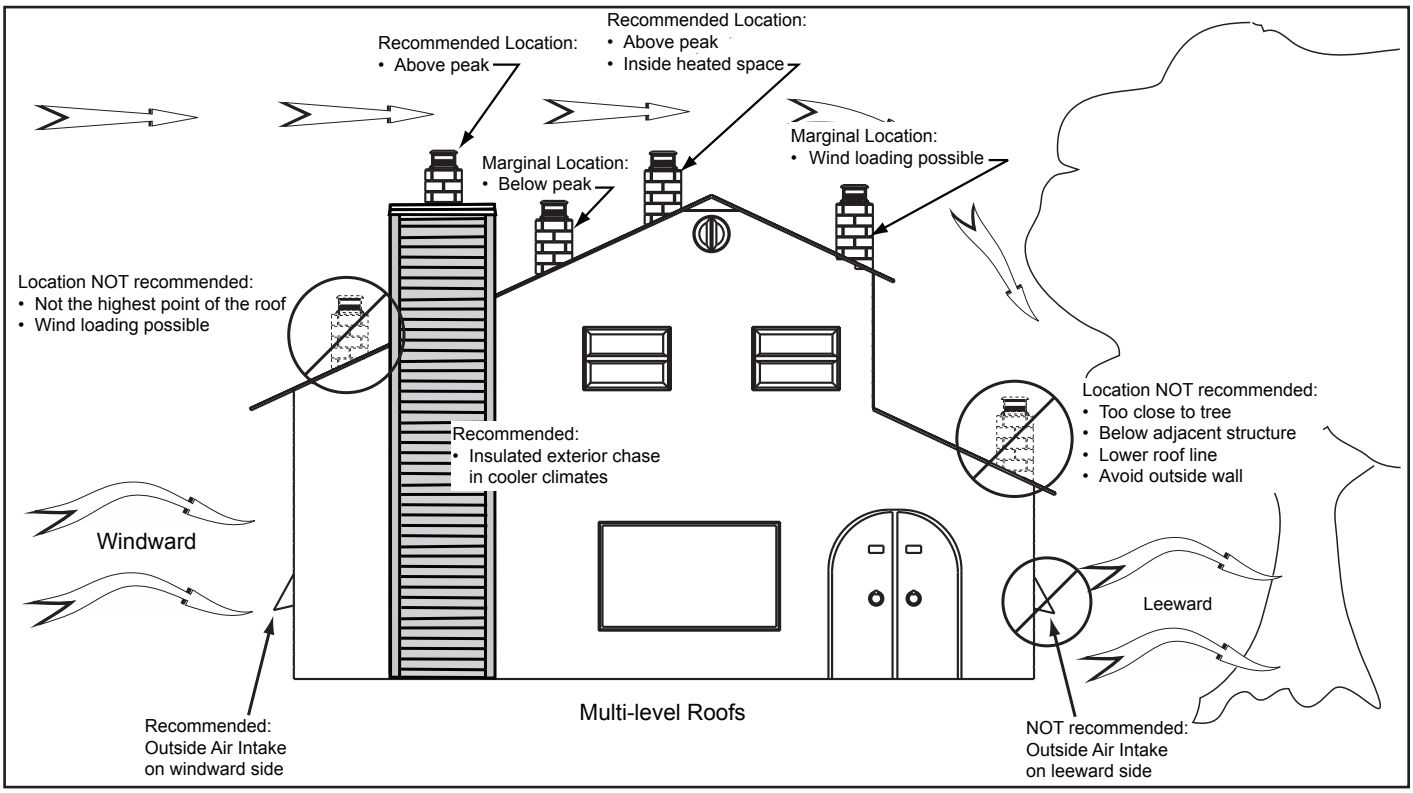


Figure 5.1

B. Locating Your Appliance & Chimney

Location of the appliance and chimney will affect performance.

- Install through the warm airspace enclosed by the building envelope. This helps to produce more draft, especially during lighting and die-down of the fire.
- Penetrate the highest part of the roof. This minimizes the effects of wind loading.
- Locate termination cap away from trees, adjacent structures, uneven roof lines and other obstructions.
- Minimize the use of chimney offsets.
- Consider the appliance location relative to floor and ceiling and attic joists.

⚠ CAUTION

- DO NOT CONNECT THIS UNIT TO A CHIMNEY FLUE SERVICING ANOTHER APPLIANCE.
- DO NOT CONNECT TO ANY AIR DISTRIBUTION DUCT OR SYSTEM.

May allow flue gases to enter the house

C. Draft

Draft is the pressure difference needed to vent appliances successfully. When an appliance is drafting successfully, all combustion byproducts are exiting the home through the chimney.

Considerations for successful draft include:

- Preventing negative pressure
- Location of appliance and chimney

To measure the draft or negative pressure on your appliance use a magnahelic or a digital pressure gauge capable of reading 0 - .25 inches of water column (W.C.).

The appliance should be running on high for at least 15 minutes for the test.

With the stove running on high you should have a negative pressure equal to or greater than the number given in the chart below. If you have a lower reading than you find on the chart, your appliance does not have adequate draft to burn the fuel properly.

Minimum Vacuum Requirements:	**.095**

D. Negative Pressure

WARNING! Risk of Asphyxiation! *Negative pressure can cause spillage of combustion fumes and soot.*

Negative pressure results from the imbalance of air available for the appliance to operate properly. It can be strongest in lower levels of the house.

Causes include:

- Exhaust fans (kitchen, bath, etc.)
- Range hoods
- Combustion air requirements for furnaces, water heaters and other combustion appliances
- Clothes dryers
- Location of return-air vents to furnace or air conditioning
- Imbalances of the HVAC air handling system
- Upper level air leaks such as:
  - Recessed lighting
  - Attic hatch
  - Duct leaks

To minimize the effects of negative air pressure:

- Install the outside air kit with the intake facing prevailing winds during the heating season
- Ensure adequate outdoor air for all combustion appliances and exhaust equipment
- Ensure furnace and air conditioning return vents are not located in the immediate vicinity of the appliance
- Avoid installing the appliance near doors, walkways or small isolated spaces
- Recessed lighting should be a “sealed can” design
- Attic hatches weather stripped or sealed
- Attic mounted duct work and air handler joints and seams taped or sealed

NOTICE: *Hearth & Home Technologies assumes no responsibility for the improper performance of the chimney system caused by:*

- *Inadequate draft due to environmental conditions*
- *Downdrafts*
- *Tight sealing construction of the structure*
- *Mechanical exhausting devices*

E. Avoiding Smoke and Odors

Negative Pressure, Shut-Down and Electrical Power Failure

To reduce the probability of back-drafting or burn-back in the pellet appliance during power failure or shut down conditions, it must be able to draft naturally without exhaust blower operation.

Negative pressure in the house will resist this natural draft if not accounted for in the pellet appliance installation.

Heat rises in the house and leaks out at upper levels. This air must be replaced with cold air from outdoors which flows into lower levels of the house.

Vents and chimneys into basements and lower levels of the house can become the conduit for air supply and reverse under these conditions.

Outside Air

An outside air kit is recommended in all installations. The Outside Air Kit must be ordered seperately.

Per national building codes, consideration must be given to combustion air supply to all combustion appliances. Failure to supply adequate combustion air for all appliance demands may lead to backdrafting of those and other appliances.

When the appliance is roof vented (strongly recommended):

The air intake is best located on the exterior wall oriented towards the prevailing wind direction during the heating season.

When the appliance is side-wall vented:

The air intake is best located on the same exterior wall as the exhaust vent outlet and located lower on the wall than the exhaust vent outlet.

The outside air supply kit can supply most of the demands of the pellet appliance, but consideration must be given to the total house demand.

House demand may consume the air needed for the appliance. It may be necessary to add additional ventilation to the space in which the pellet appliance is located.

Consult with your local HVAC professional to determine the ventilation demands for your house.

Vent Configurations

To reduce probability of reverse drafting during shut-down conditions Hearth & Home Technologies strongly recommends:

- Installing the pellet vent with a minimum vertical run of 5 feet (1.52m). Preferably terminating above the roof line.
- Installing the outside air kit at least 4 feet (1.22m) below the vent termination.

To prevent soot damage to exterior walls of the house and to prevent re-entry of soot or ash into the house:

- Maintain specified clearances to windows, doors and air inlets, including air conditioners.
- Vents should not be placed below ventilated soffits. Run the vent above the roof.
- Avoid venting into alcove locations.
- Vents should not terminate under overhangs, decks or onto covered porches.
- Maintain minimum clearance of 6 inches (152mm) from the vent termination to the exterior wall. If you see deposits developing on the wall, you may need to extend this distance to accommodate your installation conditions.

NOTE

This fireplace insert must be installed with a continuous chimney liner of 3” or 4” diameter extending from the fireplace insert to the top of the chimney. The chimney liner must conform to the class 3 requirements of CAN/ULC-S635 *Standard for Lining Systems for Existing Masonry of Factory-Built Chimneys and Vents, or CAN/ULC-S640, Standard for Lining Systems for New Masonry Chimneys.*

F. Fire Safety

To provide reasonable fire safety, the following should be given serious consideration:

- Install at least one smoke detector on each floor of your home.
- Locate smoke detector away from the heating appliance and close to the sleeping areas.
- Follow the smoke detector manufacturer's placement and installation instructions and maintain regularly.
- Conveniently locate a Class A fire extinguisher to contend with small fires.
- In the event of a hopper fire:
  - Evacute the house immediately.
  - Notify fire department.

⚠ WARNING

Fire Risk.

Hearth & Home Technologies disclaims any responsibility for, and the warranty will be voided by, the following actions:

- Installation and use of any damaged appliance.
- Modification of the appliance.
- Installation other than as instructed by Hearth & Home Technologies.
- Installation and/or use of any component part not approved by Hearth & Home Technologies.
- Operating appliance without fully assembling all components.
- Do NOT Overfire.

Or any such action that may cause a fire hazard.

G. Tools And Supplies Needed

Tools and building supplies normally required for installation, unless installing into an existing masonry fireplace:

Reciprocating Saw	Gloves
Hammer	Safety Glasses
Phillips Screw driver	Framing Square
Tape Measure	Electric Drill & Bits)
Plumb Line	1/4" Self-Tapping Screws
Level	
Framing Material	<u>May also need:</u>
Non-Combustible Sealant	Vent Support Straps
Material	Venting Paint

H. Inspect Appliance & Components

- Remove appliance and components from packaging and inspect for damage.
- Report to your dealer any parts damaged in shipment.
- **Read all the instructions before starting the installation. Follow these instructions carefully during the installation to ensure maximum safety and benefit.**

⚠ WARNING

Inspect appliance and components for damage. Damaged parts may impair safe operation.

- Do NOT install damaged components.
- Do NOT install incomplete components.
- Do NOT install substitute components.

Report damaged parts to dealer.

✓ Pre-Burn Check List

1.		Place the appliance in a location near the final installation area and follow the procedures below:
2.		Open the appliance and remove all the parts and articles packed inside the Component Pack. Inspect all the parts and glass for shipping damage. Contact your dealer if any irregularities are noticed.
3.		All safety warnings have been read and followed.
4.		This Owner's Manual has been read.
5.		Floor protection requirements have been met.
6.		Venting is properly installed.
7.		The proper clearances from the appliance and chimney to combustible materials have been met.
8.		The masonry chimney is inspected by a professional and is clean, or the factory built metal chimney is installed according to the manufacturer's instructions and clearances.
9.		The chimney meets the required minimum height.
10.		All labels have been removed from the glass door.
11.		Plated surfaces have been wiped clean, if applicable.
12.		Thermostat or remote has been installed.
13.		A power outlet is available nearby.
14.		A good quality surge protection is highly recommended to protect the electronics.

3 Dimensions and Clearances

A. Appliance Dimensions

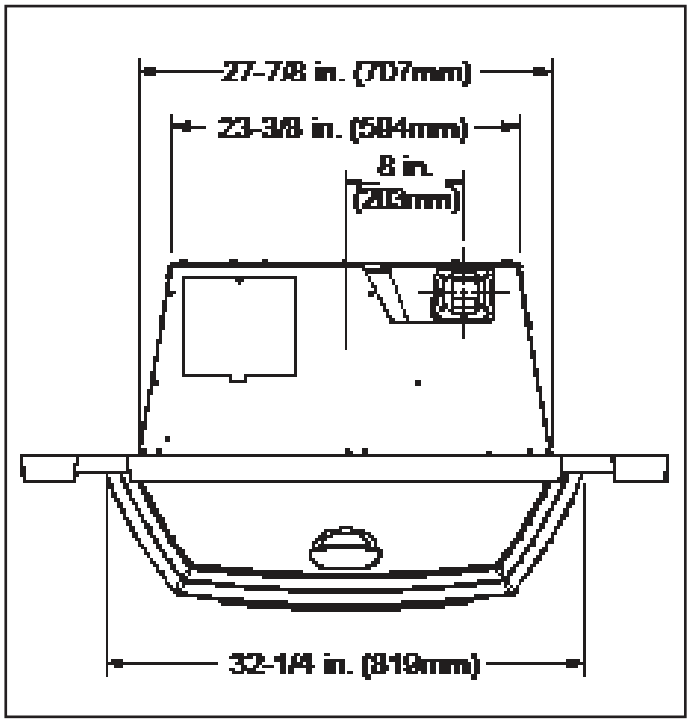


Figure 9.1 - Top View

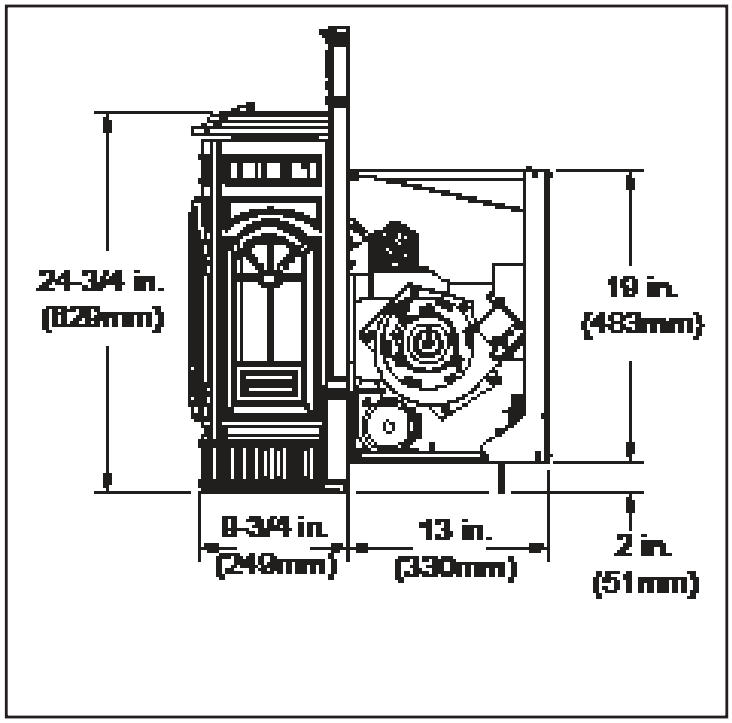


Figure 9.2 -Side View

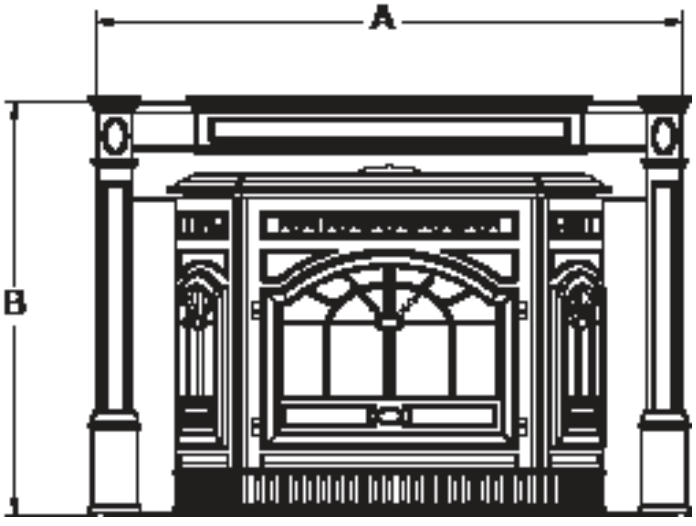


Figure 9.3- Front View

Overall Size	A	B
Metal Surround w/Cast Trim, STD	42-1/2 in. (1080mm)	30 in. (762mm)
Metal Surround w/Cast Trim, LRG	48 in. (1219mm)	34 in. (864mm)
Metal Surround w/Standard Trim, STD	43 in. (1092mm)	31 in. (787mm)
Metal Surround w/Standard Trim, LRG	51 in. (1294mm)	34 in. (864mm)

B. Clearance To Combustibles, UL and ULC

NOTE: All Clearances are Minimum Clearances

AS A BUILT-IN

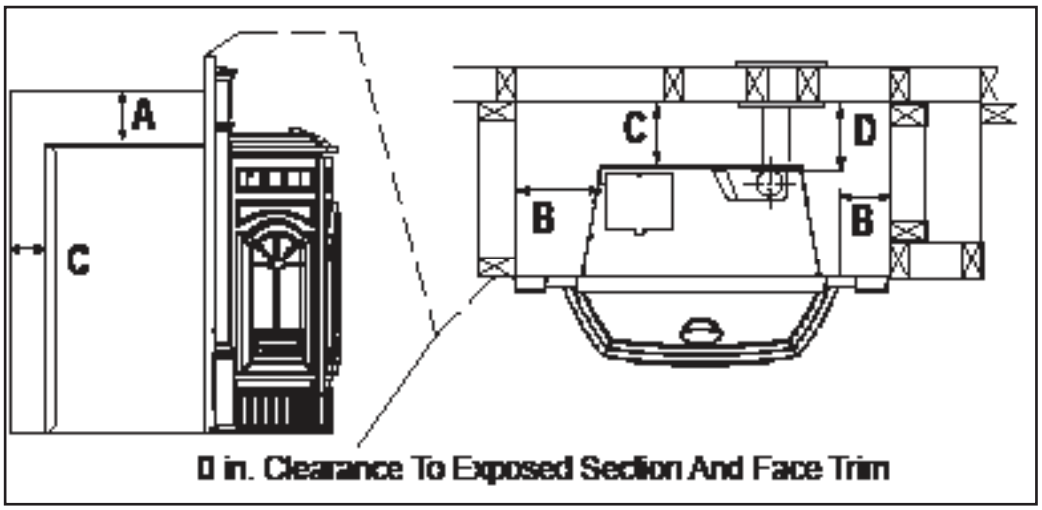


Figure 10.1 **Must be installed in a non-tapered enclosure.**

			Inches	Millimeters
A	Top of Hopper	Top Vent	2.0	51
		Rear Vent	2.5	64
B	Side of Hopper	Top or Rear Vent	2.0	51
C	Back of Hopper	Top or Rear Vent	4.0	102
D	Vent Pipe to Combustible	Top or Rear Vent	3.0	76

INSTALLED AS A BUILT-IN UNIT
Shown with Rear Vent and Outside Air

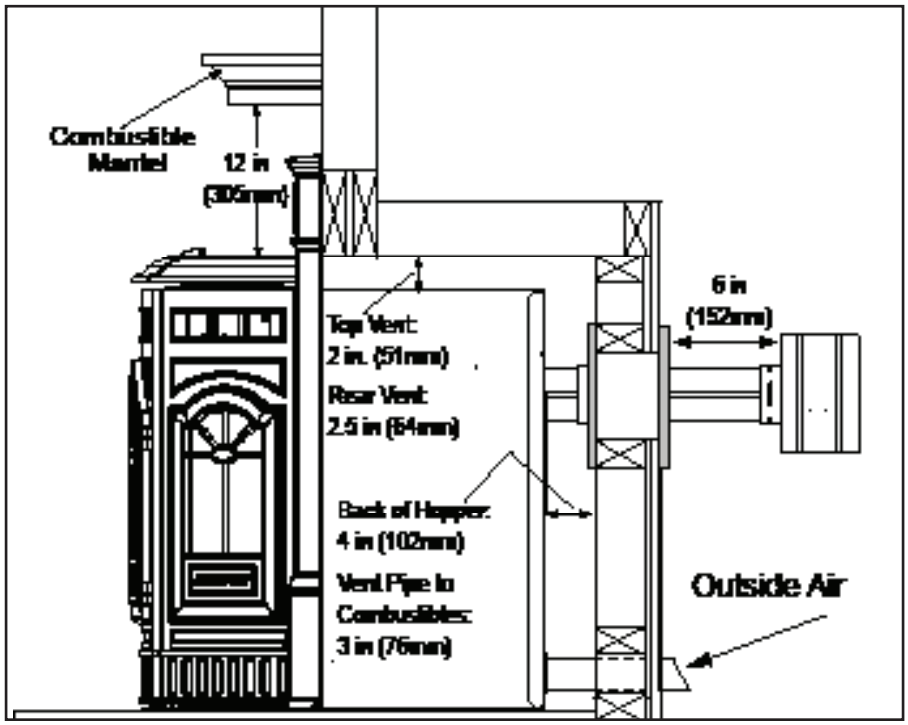

Combustible Mantel
12 in (305mm)
Top Vent: 2 in. (51mm)
Rear Vent: 2.5 in (64mm)
6 in (152mm)
Back of Hopper: 4 in (102mm)
Vent Pipe to Combustibles: 3 in (76mm)
Outside Air

Figure 10.2

WARNING

Fire Risk.
Comply with all minimum clearances to combustibles as specified.

Failure to comply may cause house fire.

NOTE:

- Illustrations reflect typical installations and are FOR DESIGN PURPOSES ONLY.
- Illustrations/diagrams are not drawn to scale.
- Actual installation may vary due to individual design preference.

C. Masonry and Factory-Built Fireplaces

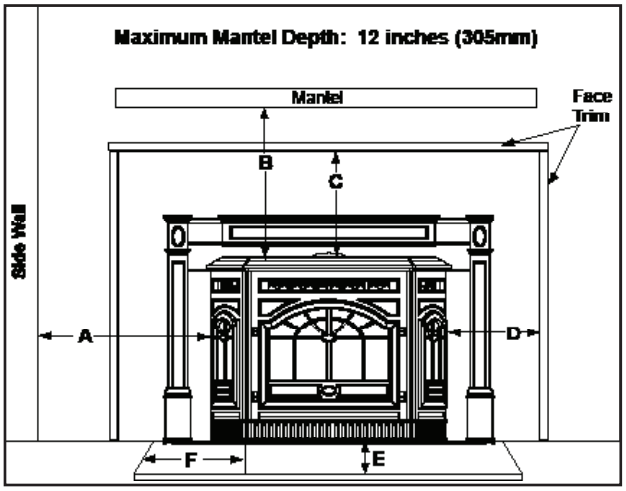


Figure 11.1

		Inches	Millimeters
A	Insert side to combustible side wall	16	406
B	Insert top to mantel	12	305
C	Insert top to maximum. 2-1/4 inch (57mm) face trim	4-3/4	121
D	Insert side to maximum. 2-1/4 inch (57mm) face trim	10	254

D. Minimum Opening for Masonry and Factory-Built Fireplaces

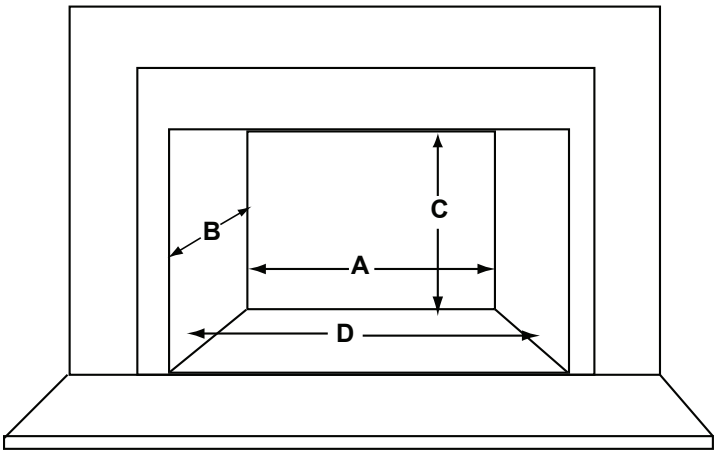


Figure 11.2

	Location	Inches	Millimeters
A	Rear Width	23-5/8	600
B	Depth	17	432
C	Height	21-1/4	540
D	Front Width	28-1/8	714

NOTE

It is necessary to permanently seal any opening between the masonry of the fireplace and the facing masonry.

E. Hearth Extension

If employing a hearth extension, any parts or materials used in construction must be non-combustible.

F. Floor Protection

		Inches	Millimeters
E	Floor protection hearth extension from door opening	6	152
F	Floor protection to the side of door opening	6	152

G. Prefabricated Metal Chimney

The chimney can be new or existing, masonry or prefabricated and must meet the following minimum requirements:

- Must be minimum 6 inch (152mm) inside diameter of high temperature chimney listed to UL 103 HT (2100^{o}F) or ULC-S629.
- Must use components required by the manufacturer for installation.
- Must maintain clearances required by the manufacturer for installation.
- Refer to manufacturers instructions for installation
- The original factory-built zero clearance fireplace chimney cap must be re-installed after installing the approved chimney liner meeting type UL 103 HT requirements (2100°F) per UL 1777.
- If the chimney is not listed as meeting HT requirements, or if the factory built fireplace was tested prior to 1998, a full height listed chimney liner must be installed from the appliance flue collar to the chimney top.
- The liner must be securely attached to the insert flue collar and the chimney top.
- The air flow of the factory-built zero-clearance fireplace system must not be altered. The flue liner top support attachment must not reduce the air flow for the existing air-cooled chimney system.
- No dilution air is allowed to enter the chimney.

1. Secure the fireplace damper in the open position. If this cannot be accomplished, it will be necessary to remove the damper.
2. Seal damper area of chimney around chimney connector with a high temperature sealant or seal insert against the face of the fireplace.
3. Both methods must be removable and replaceable for cleaning and re-installation.

H. Removing Metal Floor of Factory-Built Fireplace

- The firebrick (refractory), glass doors, screen rails, screen mesh and log grates can be removed from a factory-built firebox in order to gain minimum insert opening requirements.
- Any smoke shelves, shields and baffles may be removed from a factory-built firebox if attached with mechanical fasteners.
- The metal floor of the factory-built fireplace may be removed to facilitate the installation of the insert only when a 1/4 (6mm) inch airspace is provided between the insert and the floor of outer wrap.
- This should have prior approval from authority having jurisdiction. Upon removal, the factory built fireplace is no longer considered a UL 127 Listed fireplace, only a metal box.
- Ensure the metal box is supported to hold weight of the chimney and the insert. Maintain clearances to combustibles.

The following is only one example as there are many different models of factory-built fireplaces.

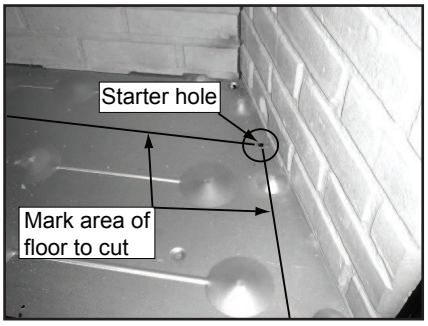


Figure 12.1. Measure and mark the metal floor for cutting. With a drill, make a starter hole in each corner.

Figure 12.2. Using a saws-all, cut out the floor.

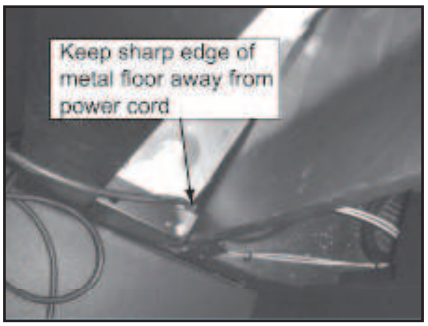


Figure 12.3. Using a saws-all, cut out the floor.

In Figure 2.3 Ensure that the power cord can not be damaged by the sharp metal edge. You may need to cut out a notch to accommodate the cord.

NOTE: If the floor is made of thin metal, we recommend using the 2 x 4 from the insert packaging to support the insert. The 2 x 4 may need to be cut to the appropriate size. Ensure that the leveling bolt is positioned over the 2 x 4 before leveling the insert.

I. Altering the Factory-Built Fireplace

- The fireplace must not be altered, except for the exceptions listed below. Do not removal the bricks and mortar from the existing fireplace.

The following modifications are premissible:

  - Removal of damper or locked in open position
  - Removal of smoke shelf or baffle
  - Removal of ember catches
  - Removel of fire grate
  - Removal of view screen/curtain
  - Removal of doors

- External trim pieces which do not affect the operation of the fireplace may be removed providing they can be stored on or within the fireplace for reassembly if the insert is removed.
- The permanent metal warning label provided must be attached to the back of the fireplace, with screws or nails, stating that the fireplace may have been altered to accommodate the insert, and the fireplace must be returned to original condition befor use as a conventional fireplace. **Figure 12.4.**
- If the hearth extension is lower than the fireplace opening, the portion of the insert extending onto the hearth must be supported.
- Manufacturer designed adjustable support kit can be ordered from your dealer.
- Final approval of this installation type is contingent upon the authority having jurisdiction.

NOTE: Refer to chimney liner manufacturer for recommendations on supporting the liner. Installation into fireplaces without a permit will void the listing

WARNING

THIS FIREPLACE MAY HAVE BEEN ALTERED TO ACCOMMODATE AN INSERT. IT MUST BE RETURNED TO ITS ORIGINAL CONDITION BEFORE USE AS A SOLID FUEL BURNING FIREPLACE.

250-2061

Figure 12.4

4 Vent Information

A. Chimney and Exhaust Connection

1. **Chimney & Connector**: Use 3 or 4 inch (76-102mm) diameter type "L" or "PL" venting system. It can be vented vertically or horizontally.
2. **Mobile Home:** Approved for all Listed pellet vent. Use Listed double wall flue connector. A Quadra-Fire outside air kit must be used with manufactured home installations.
3. **Residential:** Use 24 gauge single wall flue connector or Listed double wall flue connector to Class A Listed metal chimneys, or masonry chimneys meeting International Building Code (ICC) standards for solid fuel appliances.
4. **INSTALL VENT AT CLEARANCES SPECIFIED BY THE VENT MANUFACTURER.**
5. Secure exhaust venting system to the appliance with at least 3 screws. Also secure all connector pipe joints with at least 3 screws through each joint.
6. DO NOT INSTALL A FLUE DAMPER IN THE EXHAUST VENTING SYSTEM OF THIS UNIT.
7. DO NOT CONNECT THIS UNIT TO A CHIMNEY FLUE SERVING ANOTHER APPLIANCE.

NOTE: All pipe must be welded seam pipe whenever possible. Seal pipe joints with high temperature silicone (500°F [260°C] minimum rated only).

NOTE: If burning shelled field corn, you must use approved venting specifically designed for corn. Follow the instructions from the venting manufacturer.

⚠ WARNING

Fire Risk.

- Only LISTED venting components may be used.
- NO OTHER vent components may be used. Substitute or damaged vent components may impair safe operation.
- *Follow venting manufacturer's clearances and instructions when installing venting system.*

⚠ WARNING

Vent surfaces get HOT, can cause burns if touched. Non-combustible shielding or guards may be required.

NOTICE: In Canada when using a factory-built chimney it must be safety listed, Type UL103 HT (2100°F) [1149°C] CLASS "A" or conforming to CAN/ULC-S629M, STANDARD FOR 650°C FACTORY-BUILT CHIMNEYS.

B. Venting Termination Requirements

CAUTION

Do not terminate vent in any enclosed or semi-enclosed area such as a carport, garage, attic, crawl space, under a sun deck or porch, narrow walkway or closely fenced area, or any location that can build up a concentration of fumes such as a stairwell, covered breezeway, etc.

1. Termination must exhaust above air inlet elevation. **It is strongly recommended that at least 60 inches (1524mm) of vertical pipe be installed when appliance is vented directly through a wall**. This will create a natural draft, which will help prevent the possibility of smoke or odor venting into the home during a power outage. It will also keep exhaust from causing a nuisance or hazard by exposing people or shrubs to high temperatures. The safest and preferred venting method is to extend the vent vertically through the roof.
2. Distance from doors and opening windows, or gravity or ventilation air inlets into building:
   a. Not less than 48 inches (1219mm) below;
   b. Not less than 48 inches (1219mm) horizontally from;
   c. Not less than 12 inches (305mm) above.
3. Distance from permanently closed windows:
   a. Not less than 12 inches (305mm) below, horizontally from or above.
4. Distance between bottom of termination and grade should be 12 inches (305mm) minimum. This is conditional upon plants in the area, and nature of grade surface. The grade surface must be a non-combustible material (i.e., rock, dirt). The grade surface must not be lawn. Distance between bottom of termination and public walkway should be 84 inches (2134mm) minimum.
5. Distance to combustible materials must be 24 inches (610mm) minimum. This includes adjacent buildings, fences, protruding parts of the structure, roof overhang, plants and shrubs, etc.
6. Termination Cap Location (Home Electrical Service)
   - Side-to-side clearance is to be the same as minimum clearance to vinyl inside corners.
   - Clearance of a termination cap below electrical service shall be the same as minimum clearance to vinyl soffits.
   - Clearance of a termination cap above electrical service will be 12 inches (305mm) minimum.
   - Location of the vent termination must not obstruct or interfere with access to the electrical service.

C. Pellet Venting Charts

The maximum horizontal venting allowed with no vertical venting attached is 48 inches (1219mm) including one 90° elbow or two 45° elbows. This is our recommended horizontal venting installation. Addition of any horizontal venting beyond 48 inches (1219mm) Hearth & Home Technologies strongly recommends a minimum of 60 inches (1524mm) of additional vertical vent. Horizontal sections of vent pipe should have a 1/4 inch (6.35mm) rise per foot.

Hearth & Home Technologies recommends any installation requiring more than two 90° elbows, or more than 15 feet (4.5m) of venting to use 4 inch (102mm) vent.

⚠ WARNING

Fire Risk.

- Only LISTED venting components may be used.
- NO OTHER vent components may be used. Substitute or damaged vent components may impair safe operation.

45° elbow is equivalent to 1 foot of straight pipe
90° elbow is equivalent to 3 feet of straight pipe

ONE 90º ELBOW		
Total		Vent
4	0	3
5	5	3
6	6	3
7	7	3
8	8	4
9	9	4
10	10	4
11	11	4

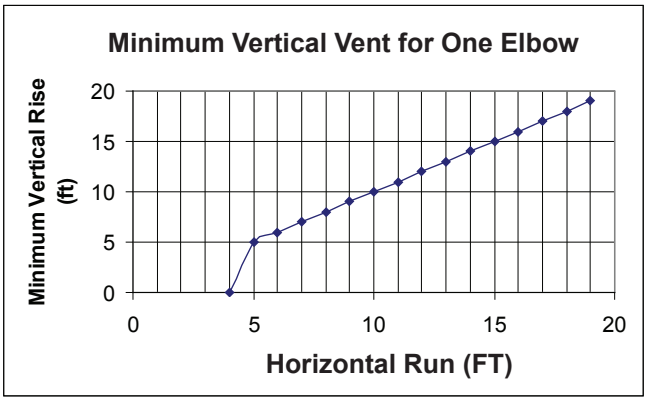


Figure 14.1

TWO 90º ELBOWS		
Total	Vertical	Vent
2	5	3
3	6	3
4	7	3
5	8	3
6	9	3

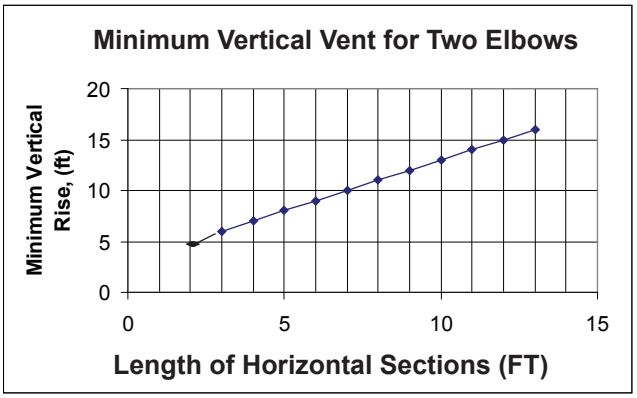


Figure 14.2

THREE 90º ELBOWS		
Total	Vertical	Vent
2	11	4
3	12	4

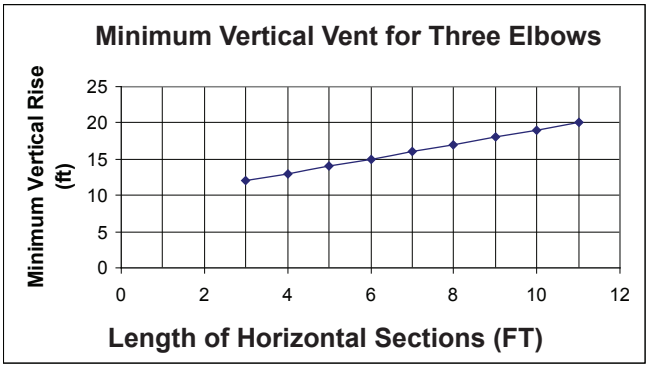


Figure 14.3

NOTICE: These are guidelines for successful venting of your pellet appliance. The more vertical rise you can obtain in your system, the better it will perform. Horizontal vent runs can accumulate ash and will need to be cleaned more often. Try to keep them as short as possible.

5 Venting Systems

A. Full Reline With Horizontal Outside Air

CAUTION

Never draw outside combustion air from:
- Wall, floor or ceiling cavity
- Enclosed space such as an attic or garage

WARNING

Fire Risk.

Inspection of Chimney:
- Masonry chimney must be in good condition.
- Meets minimum standard of NFPA 211
- Factory-built chimney must be a minimum 6 inch (152mm) UL103 HT.

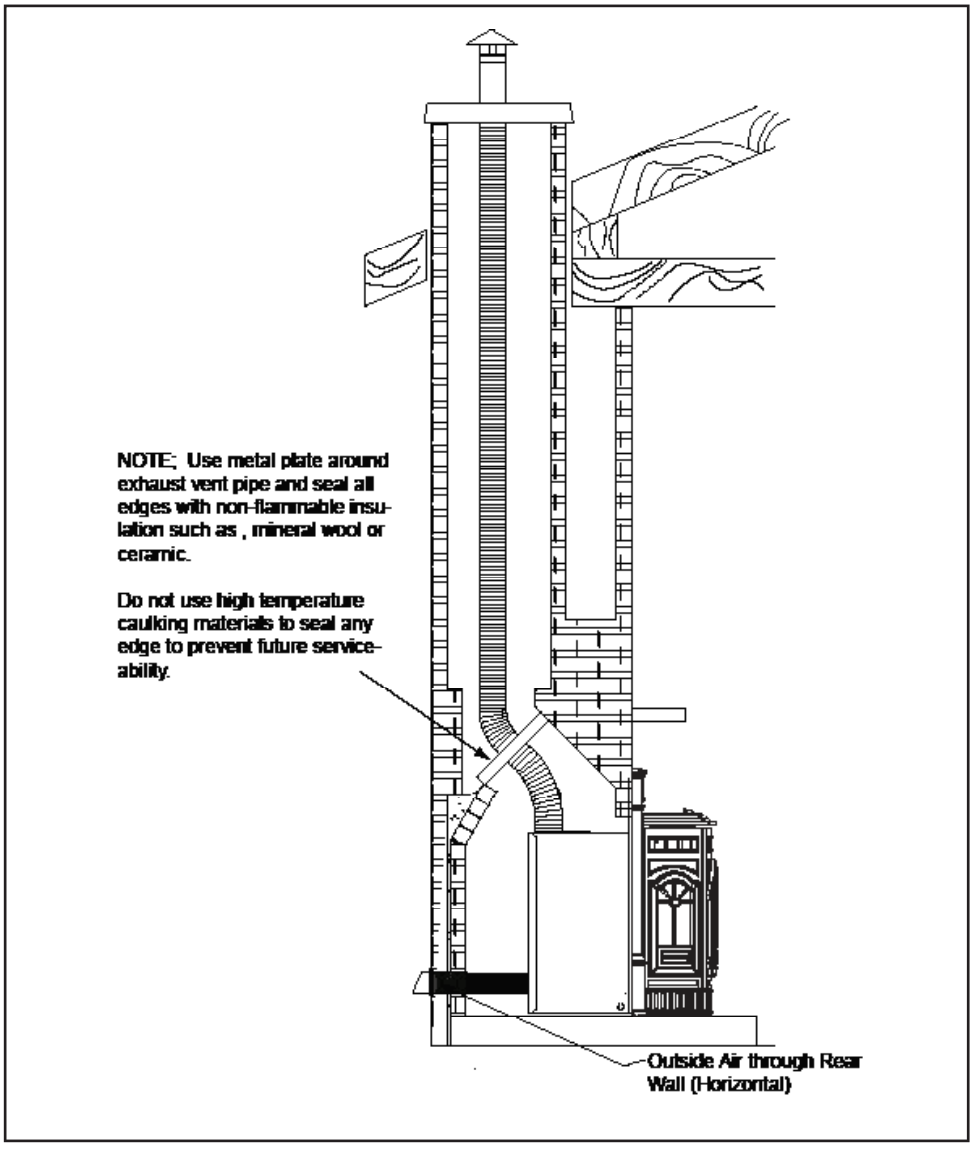

NOTE; Use metal plate around exhaust vent pipe and seal all edges with non-flammable insulation such as , mineral wool or ceramic.
Do not use high temperature caulking materials to seal any edge to prevent future serviceability.
Outside Air through Rear Wall (Horizontal)

Figure 15.1

NOTE:
In Canada, where passage through a wall or partition of combustible construction is desired, the installation shall conform to CAN/CSA-B365.

NOTE:
- Illustrations reflect typical installations and are FOR DESIGN PURPOSES ONLY.
- Illustrations/diagrams are not drawn to scale.
- Actual installation may vary due to individual design preference.

C. Full Reline With Vertical Outside Air

NOTE: Check clearances carefully for this type of installation to ensure adequate room for outside air venting.

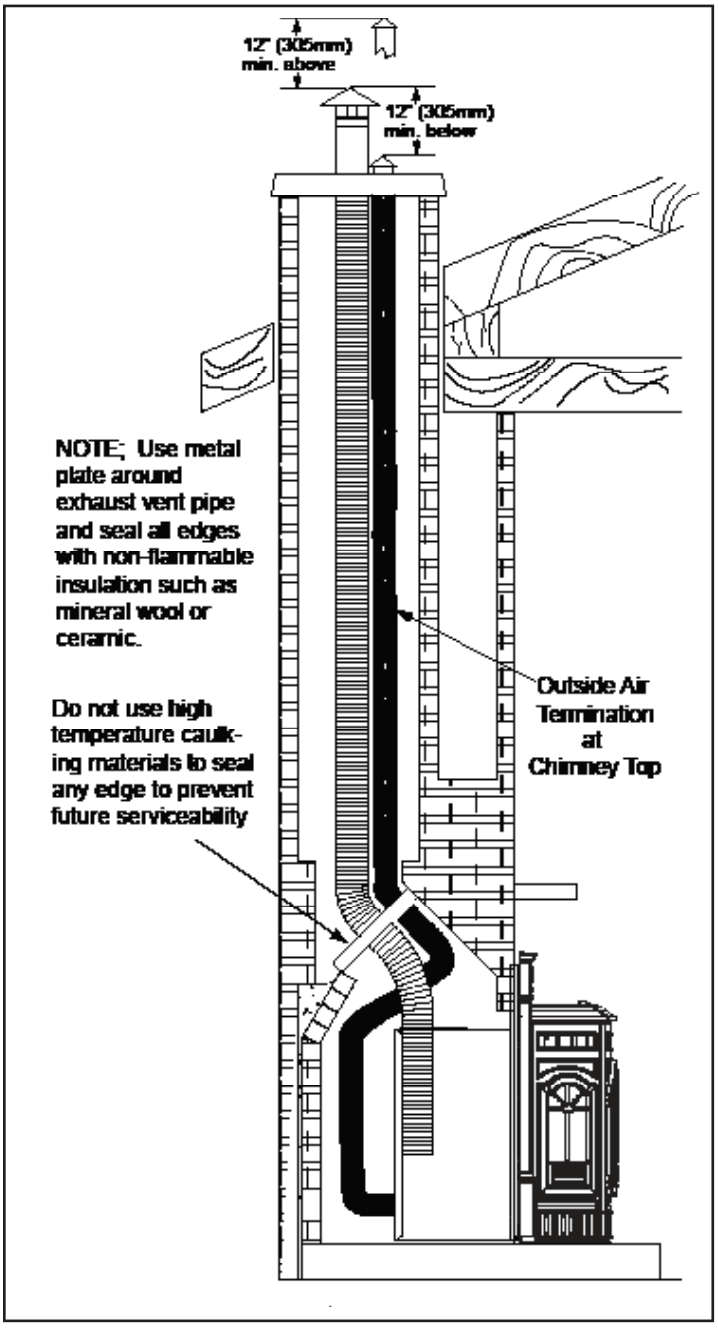

12" (305mm) min. above
12" (305mm) min. below
NOTE; Use metal plate around exhaust vent pipe and seal all edges with non-flammable insulation such as mineral wool or ceramic.
Do not use high temperature caulking materials to seal any edge to prevent future serviceability
Outside Air Termination at Chimney Top

Figure 16.1

CAUTION

Check building codes prior to installation.

- Installation MUST comply with local, regional, state and national codes and regulations.
- Consult local building, fire officials or authorities having jurisdiction about restrictions, installation inspection, and permits.

NOTE: In Canada, only a full reline is allowed per ULC S628-93, ORD ULC C1482-M1990.

NOTE: In Canada this fireplace insert must be installed with a continous chimney liner of 6 inch (152mm) in diameter extending from the fireplace insert to the top of the chimney. The chimney liner must conform to the Class 3 requirments of CAN/ULC-S635, Standard for Lining Systems for Existing Masonry or Factory-Built Chimneys and Vents, or CAN/ULC-S640, Standard for Lining Systems for New Masonry Chimneys.

6 Mobile Home

A. Mobile Home Installation

You must use a Quadra-Fire Outside Air Kit for installation in a mobile home.

1. An outside air inlet must be provided for the combustion air and must remain clear of leaves, debris, ice and/or snow. It must be unrestricted while the appliance is in use to prevent room air starvation which causes smoke spillage. Smoke spillage can also set off smoke alarms.
2. The combustion air duct system must be made of metal. It must permit zero clearance to combustible construction and prevent material from dropping into the inlet or into the area beneath the dwelling and contain a rodent screen.
3. The appliance must be secured to the mobile home structure by bolting it to the floor (using lag bolts). Use the same holes that secured the appliance to the shipping pallet with a minimum of two attachment points.
4. The appliance must be grounded with #8 solid copper grounding wire or equivalent, terminated at each end with an NEC approved grounding/bonding connector.
5. Refer to clearances to combustibles and floor protection requirements on **pages 9** to **11** for listings to combustibles and appropriate chimney systems.
6. Use silicone to create an effective vapor barrier at the location where the chimney or other component penetrates to the the exterior of the structure.
7. Follow the chimney manufacturer's instructions when installing the vent system for use in a mobile home.
8. Installation shall be in accordance with the Manufacturers Home & Safety Standard (HUD) CFR 3280, Part 24.

⚠ WARNING

Installation must comply with Manufactured Home and Safety Standard (HUD), CFR 3280, Part 24.

⚠ WARNING

Asphyxiation Risk.

DO NOT INSTALL IN A SLEEPING ROOM.
Consumes oxygen in the room.

CAUTION

THE STRUCTURAL INTEGRITY OF THE MANUFACTURED HOME FLOOR, WALL AND CEILING/ROOF MUST BE MAINTAINED.

Do NOT cut through:

- Floor joist, wall, studs or ceiling trusses.
- Any supporting material that would affect the structural integrity.

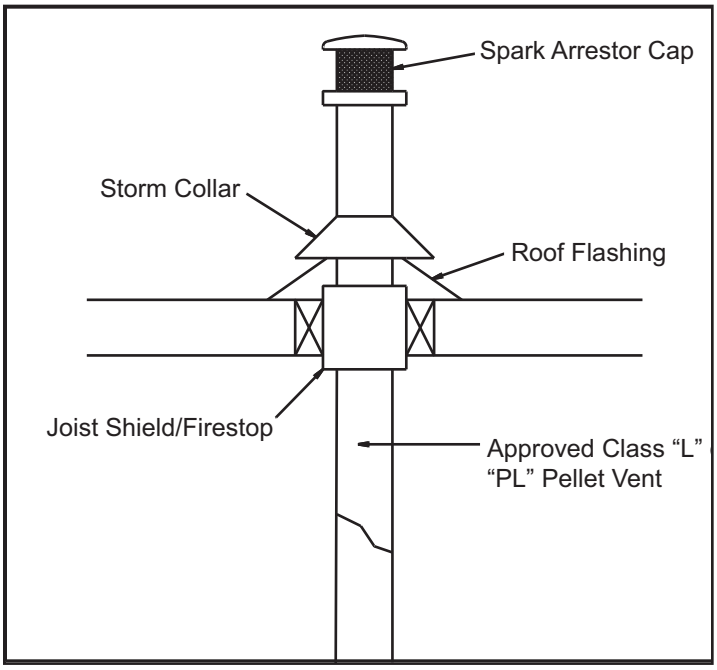


Figure 16.1

7 Appliance Set-Up

A. Leveling System

The leveling bolts are located at the rear of the appliance. To access the bolts, remove the side access panels. Reach in and turn the bolt to the desired height to level the appliance. Shown in **Figures 18.1 and 18.2.**

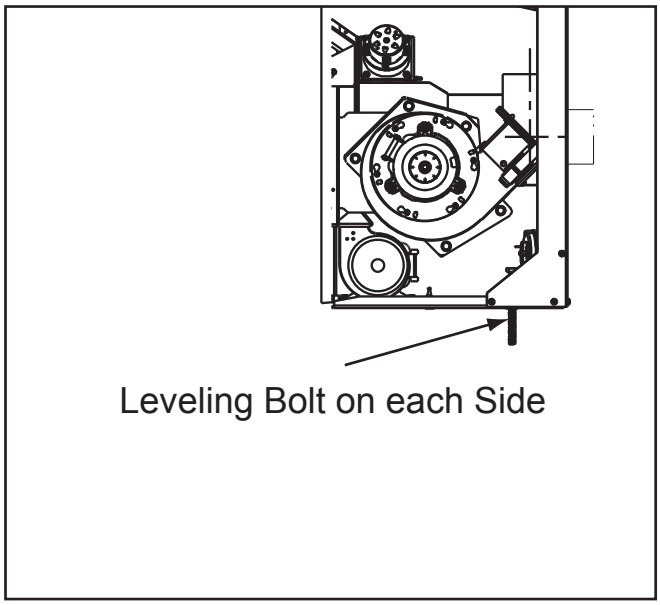


Figure 18.1

B. Outside Air Kit Instructions

Parts Included in Kit: 1 piece of 2 inch x 3 ft. flex hose, 2 hose clamps, 1 collar assembly, 1 termination cap assembly, 1 trim ring, fasteners and air intake channel (discard).

Tools Needed: Phillips head screwdriver; wire cutters; hole saw or jig saw.

1. Measure distance from floor to air vent opening in appliance and mark location on wall.
2. Use saw to cut opening in wall. Cut a 2-1/2 to 3 inch (64-76mm) opening on inside wall and a 3 to 3-1/2 inch (76-89mm) opening on outside of house.
3. Use hose clamp to secure flex pipe to collar assembly.
4. Slide trim ring over flex pipe and run pipe through wall.
5. Attach hose to outside termination cap with second hose clamp.
6. Secure termination cap to outside surface.
7. Secure trim ring to interior wall.

CAUTION

Never draw outside combustion air from:
- Wall, floor or ceiling cavity
- Enclosed space such as an attic or garage

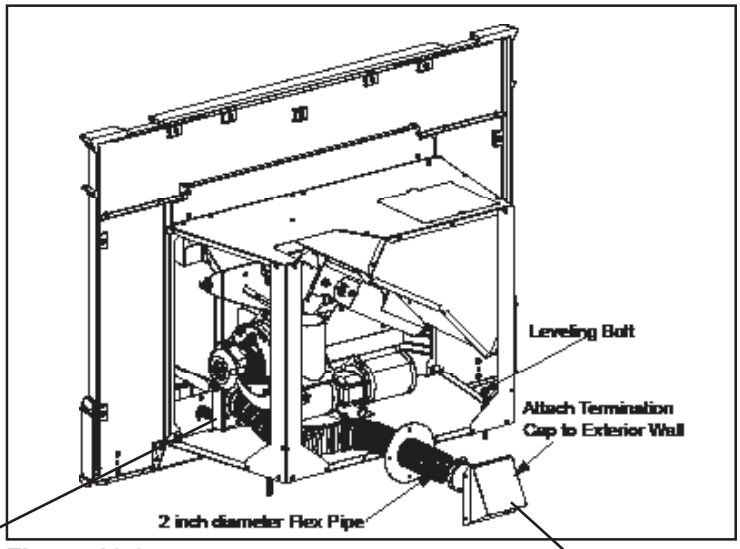
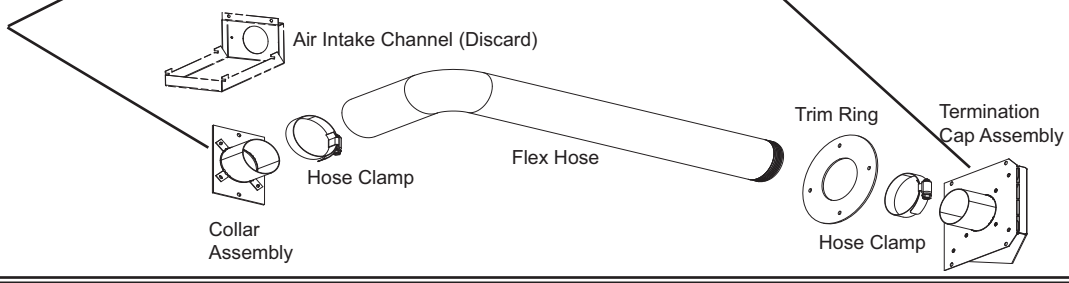


Figure 18.2



C. Door Handle Removal

1. Open the outer door.
2. Unlatch and open the firebox door.
3. Continue to turn handle until it is free from the firebox door.

D. Door Removal

1. Open the outer door.
2. Unlatch and open the firebox door.
3. Lift the firebox door up, freeing it from the firebox hinges.

E. Adjustable Hearth Support

Size: 9"d x 45"w, 2" to 10" Height Adjustment

Included in Kit: (1) trim top, (1) trim front, (2) trim sides, double-sided tape (already installed)

Tools Needed: Phillips head screwdriver, sheet metal shears, measuring tape, gloves

1. The 10 screws on each set of scissors will already be loose when shipped. **Figure 19.1.**
2. Expand scissors to desired height. Tighten screws to hold in place using Phillips head screwdriver.
3. Measure front and side trims to required height to cover scissors and mark pieces for cutting. Cut excess material from **top** of trim's edge, not bottom. This edge will be sharp; wear gloves to prevent injury to your hands. The cut edge fits under lip of top trim, so it allows for some variance in your straight edge. **Figure 19.2.**
4. The double-sided tape that holds front and side trims to scissors has a powerful bonding adhesive. Adjustments are extremely difficult once trim has adhered to tape. Do a dry run first without removing paper from tape.
5. Place cut edge of trim under top lip and into position on scissors. Place side pieces on first and then front piece. The front piece overlaps side pieces.
6. Once you are satisfied with the positioning, remove trim and set aside.
7. Remove the paper from double-sided tape that is to accept trim side. Align side and then press hard against tape to secure side piece. Repeat for other side. Install front trim piece last.
8. There are 3 holes in the back flange of the top to secure it to the wall if necessary. Use the appropriate fastener for the type of wall material, i.e., brick, sheetrock, etc.

NOTE: 3/8 inch (9.5mm) thick tile or like material can be cut to size and fit under lip of top trim edge for a decorative touch. **Figure 20.3.**

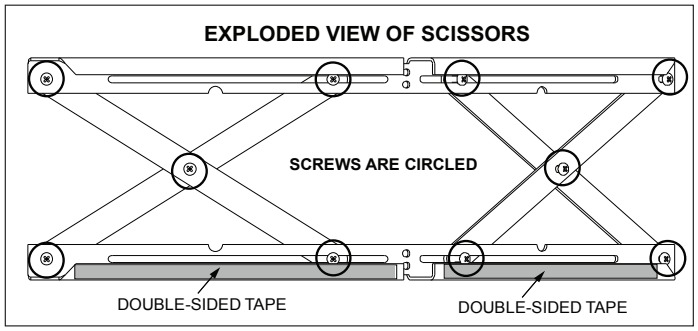


Figure 19.1

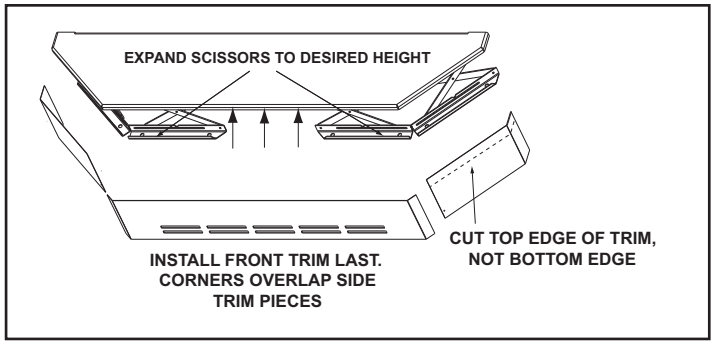

EXPAND SCISSORS TO DESIRED HEIGHT
CUT TOP EDGE OF TRIM, NOT BOTTOM EDGE
INSTALL FRONT TRIM LAST. CORNERS OVERLAP SIDE TRIM PIECES

Figure 19.2

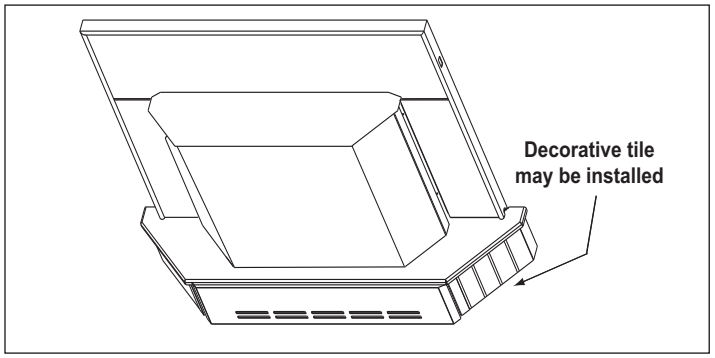
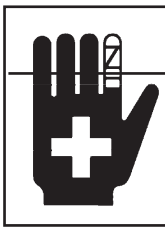


Figure 19.3



WARNING

Sheet metal trim edges will be sharp. For safety purposes wear gloves.

Injury can occur.

F. Hearth Support For Standard Surround Only

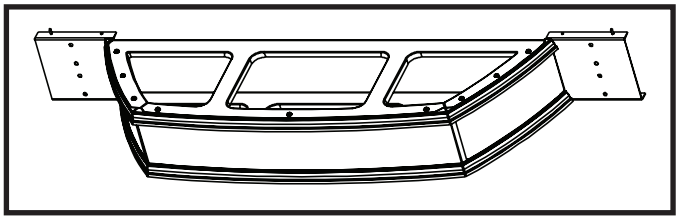


Figure 20.1 - Assembled View

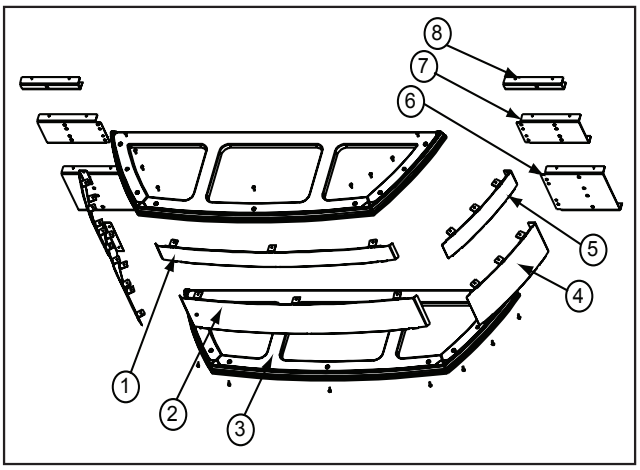


Figure 20.2

Item	Description
1	Front, 3 inch
2	Front, 5 inch
3	Cast Ring, Top & Bottom, Interchangeable
4	Side, 5 inch
5	Side, 3 inch
6	Panel Extension, 5 inch
7	Panel Extension, 3 inch
8	Panel Extension, Base Plate Only

1. Remove contents from box and lay on protective surface to avoid scratching the paint.
2. Lay hearth support's front and sides face down. Bend the tab down toward the inside.
3. The side pieces are shipped flat. It is much easier to manually flex the sides into a bowed position before installing.
4. Lay 1 cast ring face up, which will become the bottom ring when installed. Attach the 2 sides FIRST and then the front piece. **Figure 20.3.**
5. Now turn the cast ring right side up and attach the top cast ring . **Figure 20.4.**
6. Attach the hearth support's panel extensions. **Figure 20.5**
7. Attach cast footers. **Figure 20.6.**
8. Place the assembled hearth support under the insert. **Figure 20.7.**

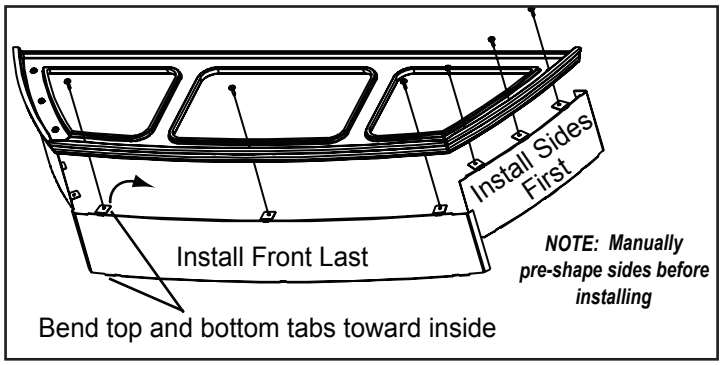

Install Sides First
Install Front Last
NOTE: Manually pre-shape sides before installing
Bend top and bottom tabs toward inside

Figure 20.3

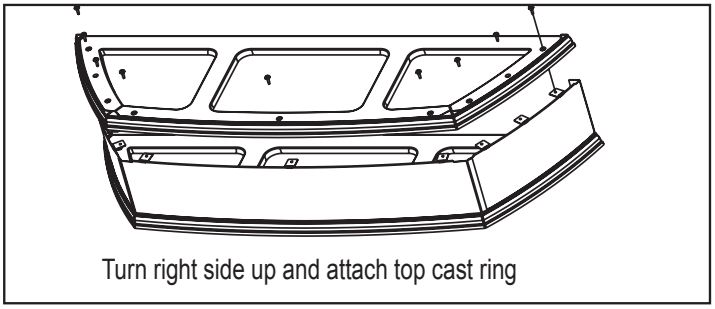


Figure 20.4

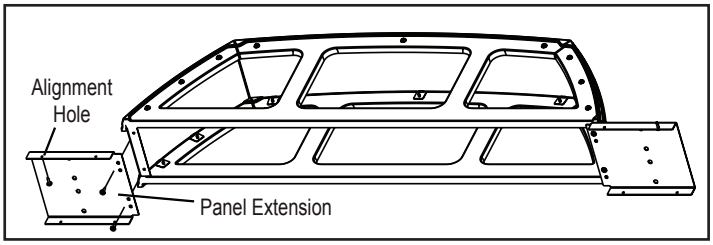


Figure 20.5

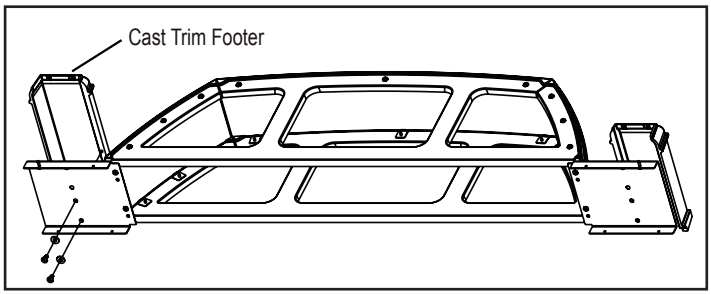


Figure 20.6

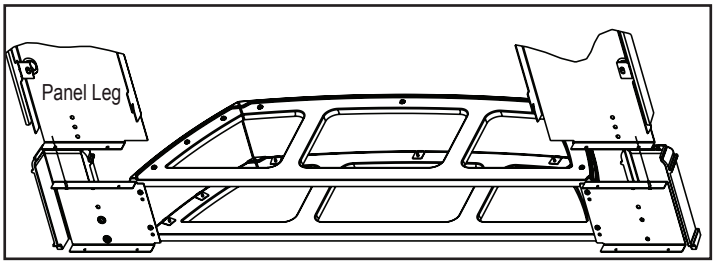


Figure 20.7

F. Hearth Support (Cont'd)

Base Plate Only Installation

Parts Needed: (1) cast ring (2) base zero clearance panel extensions. Discard balance of parts.

Tools Needed: Phillips head screwdriver

1. Attach base zero clearance panel extensions to cast ring.
2. Place assembly under appliance.

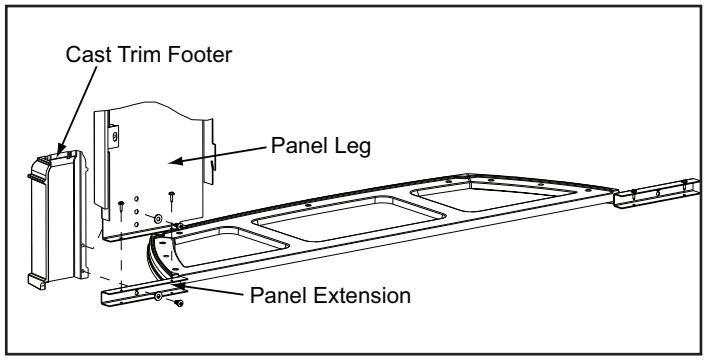


Figure 21.1

G. Surround & Trim Set, Econo

Included in Surround Kit: 2 side pieces, left and right, top piece and fastener package.

Included in Basic Trim Kit: 2 side pieces, left and right, top piece and "L" brackets.

Tools Needed: 4-6 inch long Philips head screwdriver, pliers and flat head screwdriver

1. Lay surround face down on a flat protected surface to prevent scratching.
2. Using the Philips head screwdriver attach the side surrounds to the top surround using 2 sheet metal screws provided with the kit on each side.
3. Assemble the trim with the two corner brackets provided.
4. Slide the assembled trim over the assembled surround set.
5. Remove the cast sides before attaching the surround and trim. Lift up the top to expose the thumb screws that secure the cast sides. Remove the thumb screw and top bracket and then remove the cast side. NOTE: The right cast side bracket has the hopper cut out switch attached. Remove the retainer from the right side and allow to hang down into the insert or disconnect the switch when removing side.
6. Install the power cord in the surround.
7. If power enters the appliance on the right side: Using the pliers, attach cord restraint 12 inches from the female end of the cord and then press into the right side panel. **Figure 21.2.**
8. If power enters appliance on the left side: The cord will have to be routed through the back of the insert. When routing the power cord, keep cord lying flat as possible, keeping the cord away from all exhaust surfaces and moving parts. After routing, install cord restraint and press into the left side panel.
9. Slide surround over the top of the insert into place. Surround attaches to bottom and top of insert sides with the supplies 1/4 inch screws.
10. Plug cord into inlet on junction box routing the wire as shown in **Figure 21.3.**
11. Install plug into unused hole.

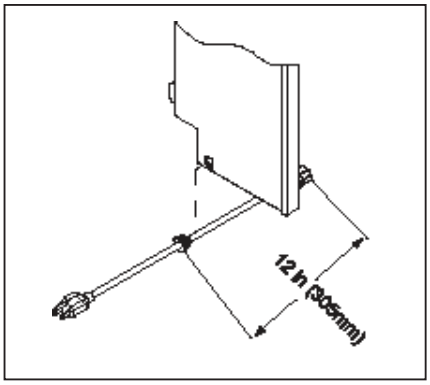


Figure 21.2

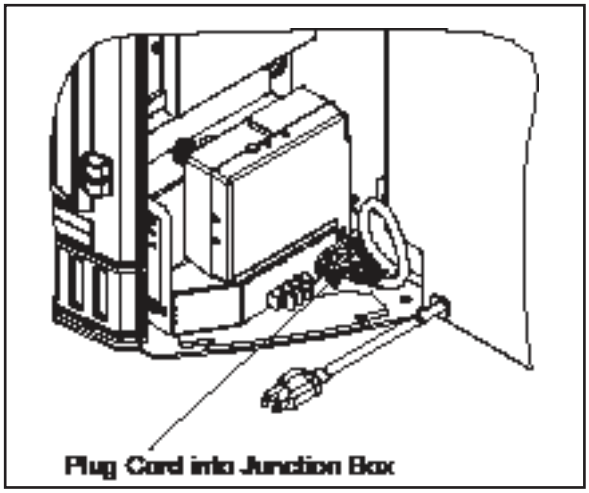


Figure 21.3

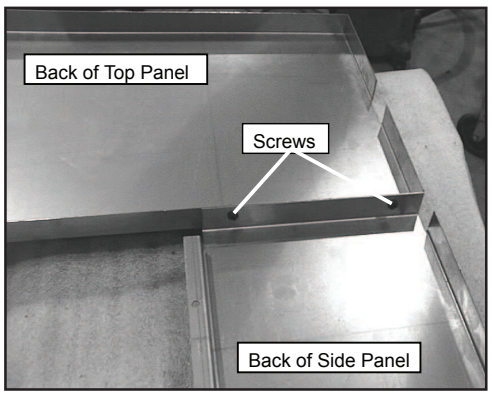


Figure 21.4

G. Surround & Trim Set, Econo (Cont'd)

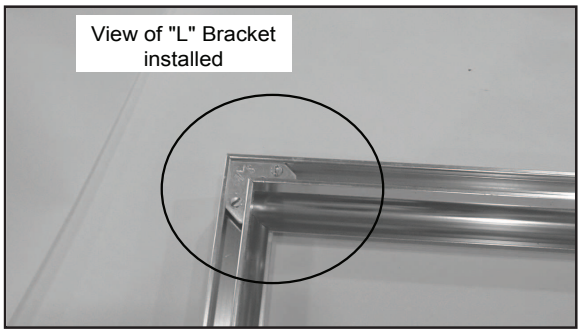


Figure 22.1

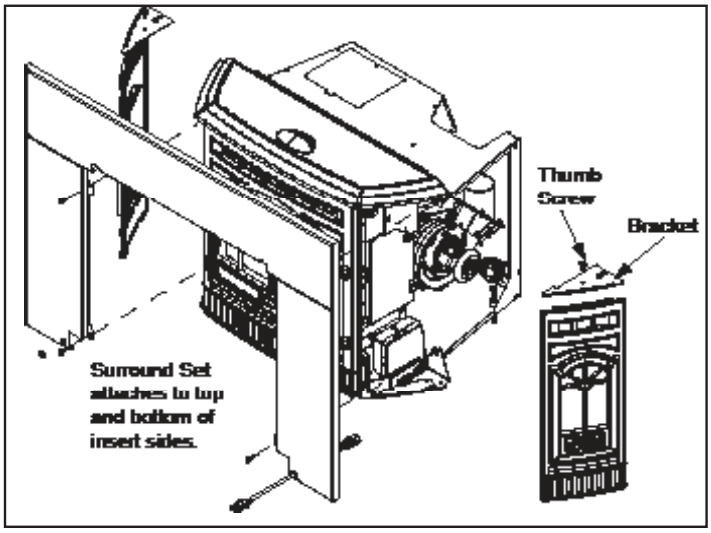


Figure 22.2

H. Surround and Cast Trim Set

Included in Surround Kit: (2) side surrounds, left and right; (1) surround top; (1) fastener package.

Included in Cast Trim Kit: (2) cast trim legs, left and right; (1) cast trim header; (2) cast trim footers, left and right

Tools Needed: 4-6 inch long Philips head screwdriver, pliers and flat head screwdriver.

1. Place the peel and stick round felt vibration insulation pads on the front side in each corner of the top metal piece and on the back side in each corner of the top cast piece. **Figure 23.1 on page 23**
2. Lay surround face down on a flat protected surface to prevent scratching.
3. Using the Philips screwdriver attach the side surrounds to the top surround using 2 sheet metal screws provided with the kit on each side.

CAUTION
Do not pick up assembled appliance by corners. It is too heavy and may damage the surrounds. Pick up from center.

4. Assemble Cast Trim and attach to surround:

a) Place corresponding cast trim pieces (2 cast trim sides and 1 cast trim header) underneath the surround set, also face down. Align the holes in the metal pieces with the 5 bosses on the top cast piece and 2 bosses on each side piece. **Figure. 22.1**.

b) Attach the magnets to the magnet brackets with one countersink screw each. Attach magnet and bracket to the metal surround sides with magnet facing the front as shown in **Figure. 23.1 on page 23.**

c) Place cast footers under metal sides aligning the top and bottom holes.

d) The 9 mounting clips are shipped in one long strip. Use your hands or pliers to break them apart.

e) Each clip has a clearance notch to allow room for the cast on the boss. Place the clips over the boss so that the notch is facing the outer edge of the surround. **Figure 23.3 on page 23.**

f) It is best to install all of the 1/4-20 screws only half way at first to allow for adjustments. After adjustment tighten the 2 screws in each footer first and then work your way around to the rest.

5. Remove the cast sides before attaching the surround and trim. Lift up the top to expose the thumb screws that secure the cast sides. Remove the thumb screw and top bracket and then remove the cast side. NOTE: The right cast side bracket has the hopper cut out switch attached. Remove the retainer from the right side and allow to hang down into the insert or disconnect the switch when removing side.
6. Install the power cord in the surround.
7. If power enters the appliance on the right side: Using the pliers, attach cord restraint 12 inches from the female end of the cord and then press into the right side panel. **Figure 21.2 on page 21.**
8. If power enters appliance on the left side: The cord will have to be routed through the back of the insert. When routing the power cord, keep cord lying flat as possible, keeping the cord away from all exhaust surfaces and moving parts. After routing, install cord restraint and press into the left side panel.
9. Slide surround over the top of the insert into place. Surround attaches to bottom and top of insert sides with the supplies 1/4 inch screws.
10. Plug cord into inlet on junction box routing the wire as shown in **Figure 21.3 on page 21.**
11. Install plug into unused hole.

H. Surround and Cast Trim Set (Cont'd)

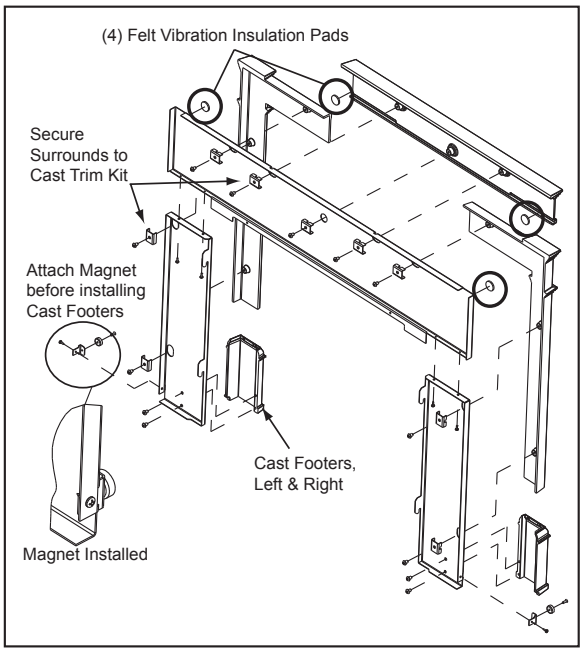

(4) Felt Vibration Insulation Pads
Secure Surrounds to Cast Trim Kit
Attach Magnet before installing Cast Footers
Cast Footers, Left & Right
Magnet Installed

Figure 23.1

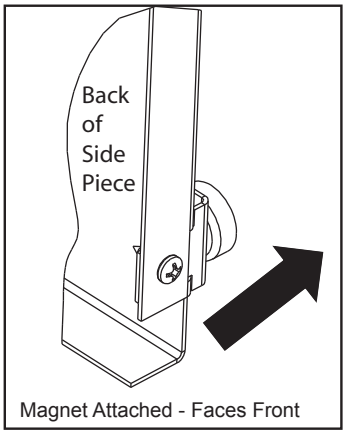


Figure 23.2

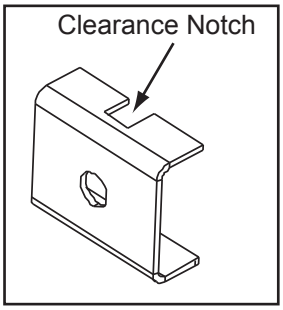


Figure 23.3

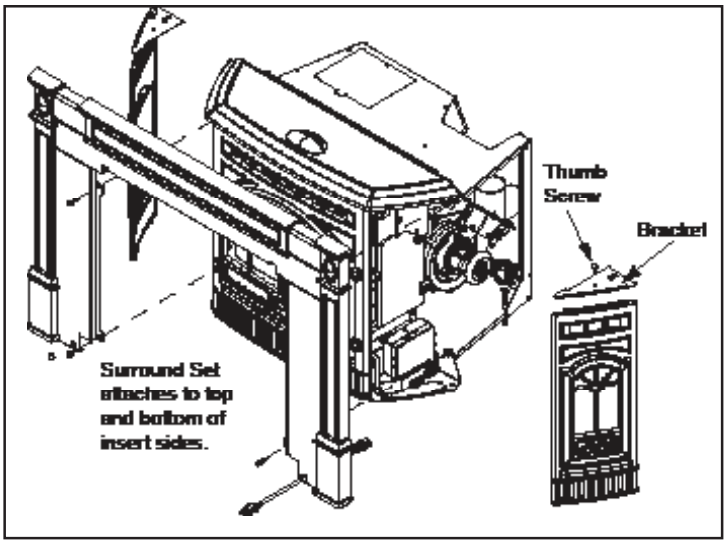


Figure 23.4

I. Optional Log Set Placement Instructions

CAUTION

Logs are FRAGILE. Use extreme care when handling or cleaning logs.

Two Piece Log Set Installation

1. Open door to expose the firebox.
2. Install the left log first and then the right log. **Figure 23.1**
3. Lean the logs against the cast iron brick in the back of the firebox.
4. Push the logs to the far left and far right against the sides of the firebox. **Figure 23.2.**
5. To clean the logs, use a vaccum cleaner and a soft brush attachment or a paint brush.

Figure 23.5

Figure 23.6

NOTE:
Due to the abrasive nature of a pellet appliance fire, the logs are not covered under warranty. Any placement variation other than shown here can cause excessive heat and shall void the appliance warranty.

J. Thermostat Installation

1. A 12 volt AC thermostat is required to operate this pellet appliance. You may use the included wall mount thermostat or purchase an optional programmable thermostat or remote control.

   The included thermostat is equipped with an adjustable heat anticipator. The current rating is .05 amps. The anticipator needs to be adjusted to the lowest setting available.

2. When mounting a thermostat on a wall, be sure to follow your thermostat installation instructions carefully.

   NOTE: Thermostat must be mounted level for accurate readings. The thermostat should be mounted on an inside wall and not in direct line with the appliance convection air. Remove any packaging from inside the thermostat before using.

   NOTE: If the thermostat is located too close to the appliance, you may need to set the temperature setting slightly higher to maintain the desired temperature in your home.

⚠ CAUTION

Shock hazard.

- Do NOT remove grounding prong from plug.
- Plug directly into properly grounded 3 prong receptacle.
- Route cord away from appliance.
- Do NOT route cord under or in front of appliance.

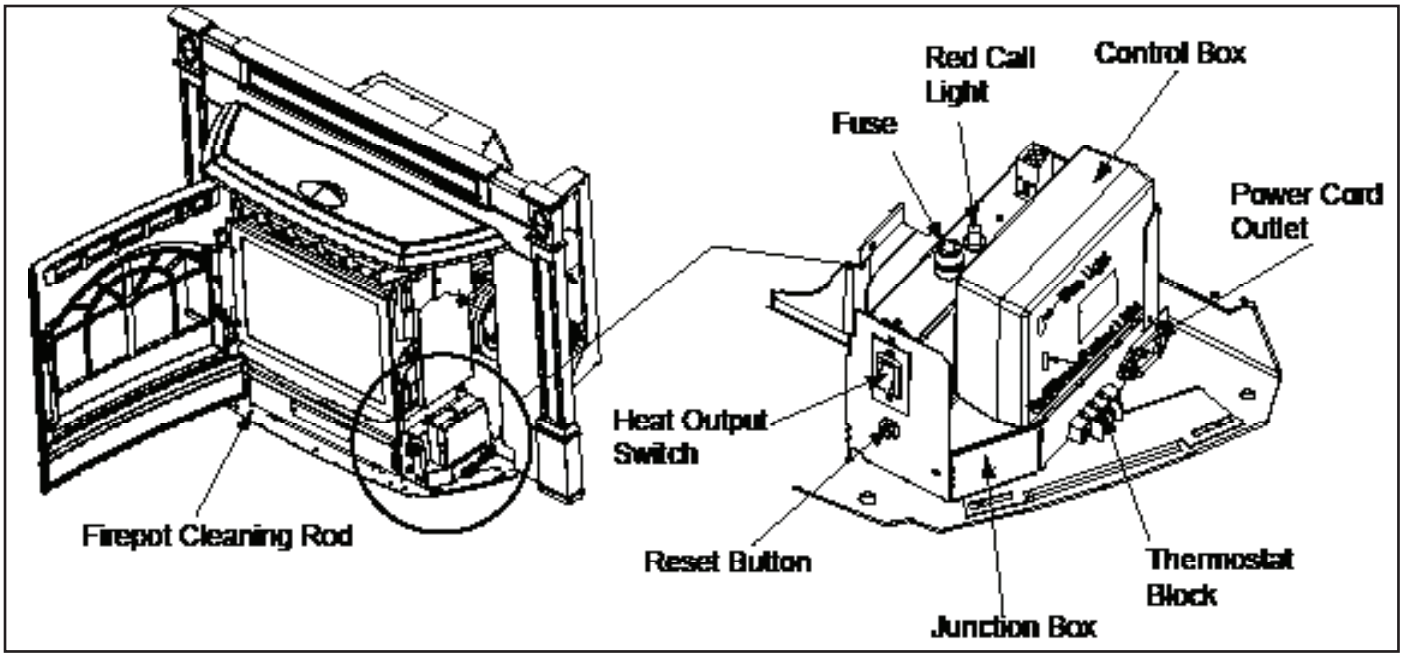


Figure 24.1

8 Operating Instructions

A. Combustible/Non-Combustible Materials

- **Combustible Material**
  Material made of or surfaced with wood, compressed paper, plant fibers, plastics, or any material capable of igniting and burning, whether flame-proofed or not, plastered or unplastered.
- **Non-combustible Material**
  Material which will not ignite and burn. Such materials are those consisting entirely of steel, iron, brick, tile, slate, glass or plasters, or any combination thereof.
- **Non-combustible Sealant Material**
  Sealants which will not ignite and burn: Rutland, Inc. Fireplace Mortar #63, Rutland 76R, Nuflex 304, GE RTV106 or GE RTB116 (or equivalent).

B. Fuel Material and Fuel Storage

Pellet fuel quality can greatly fluctuate. We recommend that you buy fuel in multi-ton lots whenever possible. However, we do recommend trying various brands before purchasing multi-ton lots to ensure your satisfaction.

Fuel Material

- Made from sawdust or wood by-products
- Shelled field corn
- Depending on the source material it may have a high or low ash content.

Higher Ash Content Material

- Hardwoods with a high mineral content
- Fuel that contains bark
- Standard grade pellets, high ash pellets or shelled field corn

Lower Ash Content Material

- Most softwoods
- Fuels with low mineral content
- Most premium grade pellets

Shelled Field Corn

- Moisture content must be 15% or less
- Corn must be free of debris. Never burn corn straight from the field it will clog the auger mechanism
- Corn with excessive grain dust must be screened by sifting with 3/16 (4.76mm) inch mesh screening
- Do not use corn that contains additives such as oils or meals or has been chemically treated with pesticides. It will void your warranty and destroy the exhaust system.

Clinkers

Minerals and other non-combustible materials such as sand will turn into a hard, glass-like substance called a clinker when heated in the firepot.

Trees from different areas will vary in mineral content. That is why some fuels produce more clinkers than others.

Moisture

Always burn dry fuel. Burning fuel with high moisture content takes heat from the fuel and tends to cool the appliance, robbing heat from your home. Damp pellet fuel can clog the feed system.

Size

- Pellets are either 1/4 inch or 5/16 inch (6-8mm) in diameter
- Length should be no more than 1-1/2 inches (38mm)
- Pellet lengths can vary from lot to lot from the same manufacturer
- Due to length variations, the feed rate may need adjusting occasionally

Performance

- Higher ash content and burning corn requires the firepot and the ash drawer to be emptied more frequently
- Hardwoods require more air to burn properly
- Premium wood pellets produce the highest heat output
- Burning pellets longer than 1-1/2 inches (38mm) can cause an inconsistent fuel feed rate and/or missed ignitions or jammed auger.

We recommend that you buy fuel in multi-ton lots whenever possible. However, we do recommend trying various brands before purchasing multi-ton lots to ensure your satisfaction.

CAUTION! *Tested and approved for wood pellets and shelled field corn. Burning of any other type of fuel voids your warranty*

Storage

- Wood pellets should be left in their original sealed bag until using to prevent moisture absorption
- Shelled corn should be stored in a tight container to prevent it from absorbing moisture from damp or wet floors
- Do not store any pellet fuel within the clearance requirements or in an area that would hinder routine cleaning and maintenance

⚠ WARNING

Fire Risk.

- High ash fuels, or lack of maintenance, can cause the firepot to fill with ash and clinker. If the firepot fills to the top, immediately shut down the appliance and clean.
- Failure to do so could result in smoking, sooting and possible hopper fires.

C. General Operating Information

1. Thermostat Calls For Heat

The appliance is like most modern furnaces; when the thermostat calls for heat, your appliance will automatically light and deliver heat.

When the room is up to temperature and the thermostat is satisfied, the red call light will shut off and the appliance will shut down. The red call light is located behind the right access panel.

2. Heat Output Controls

This appliance is equipped with a heat output control switch that has three settings or burn rates; low, medium and high. **Figure 26.1.**

The appliance will turn on and off as the thermostat demands. When the thermostat calls for heat, the appliance will always start up on High. After burning approximately 4 minutes, the appliance will then burn at the rate at which it was originally set. If the appliance is set at one of the lower settings, it will run quieter but takes longer to heat up an area than if it were set at a higher burn rate.

Regardless of the burn rate, when the area is warm enough to satisfy the thermostat, the appliance will shut off.

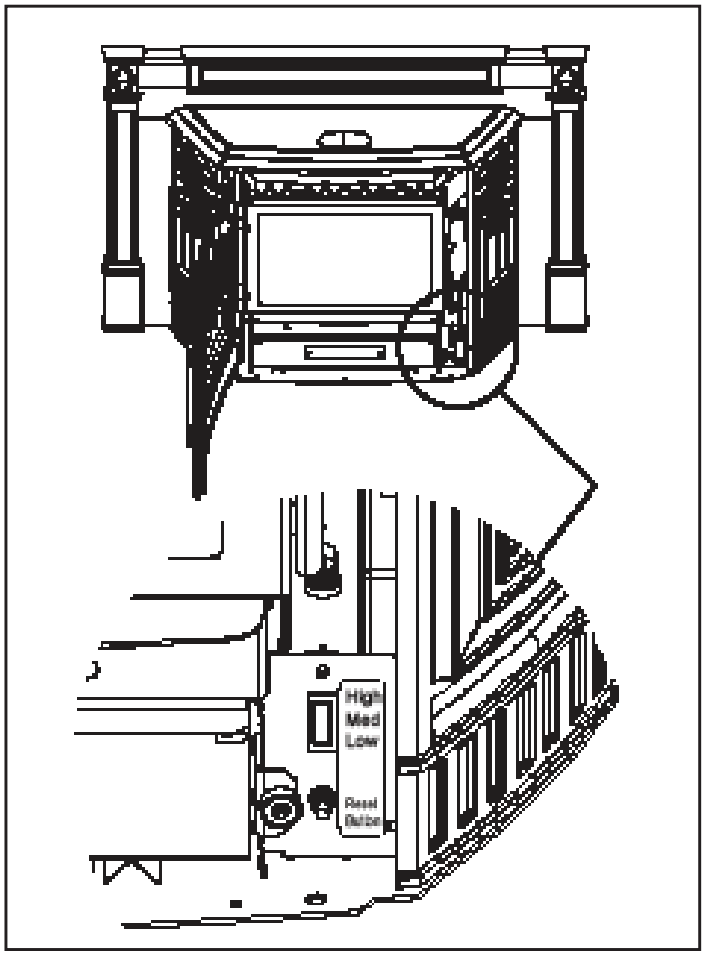


Figure 26.1

⚠ WARNING

Fire Hazard.
Keep combustible materials, gasoline and other flammable vapors and liquids clear of appliance.

- Do NOT store flammable materials in the appliance's vicinity.
- NEVER USE GASOLINE, GASOLINE-TYPE LANTERN FUEL, KEROSENE, CHARCOAL LIGHTER FLUID, OR SIMILAR LIQUIDS TO START OR "FRESHEN UP" A FIRE IN THIS HEATER. KEEP ALL SUCH LIQUIDS WELL AWAY FROM THE HEATER WHILE IT IS IN USE.
- DO NOT BURN GARBAGE OR FLAMMABLE FLUIDS SUCH AS GASOLINE, NAPHTHA OR ENGINE OIL.
- DO NOT USE CHEMICALS OF FLUIDS TO START THE FIRE.
- Combustible materials may ignite.

D. Before Your First Fire

1. First, make sure your appliance has been properly installed and that all safety requirements have been met. Pay particular attention to the fire protection, venting and thermostat installation instructions.
2. Double check that the ash drawer and firebox are empty!
3. Close the front door.

CAUTION

Tip of thermocouple must be in contact with the inside end of the thermocouple cover.

Missed ignitions can occur.

E. Clear Space

WARNING! RISK OF FIRE! *Do NOT place combustible objects in front or to the sides of the appliance. High temperatures may ignite clothing, furniture or draperies.*

Mantel: Avoid placing candles and other heat-sensitive objects on mantel or hearth. Heat may damage these objects.

NOTICE: *Clearances may only be reduced by means approved by the regulatory authority having jurisdiction.*

WARNING! RISK OF FIRE! *Keep combustible materials, gasoline and other flammable vapors and liquids clear of appliance.*

- *Do **NOT** store flammable materials in the appliance's vicinity.*
- *Do **NOT** use gasoline, lantern fuel, kerosene, charcoal lighter fluid or similar liquids to start or "freshen up" a fire in this heater.*

Keep all such liquids well away from the heater while it is in use as combustible materials may ignite.

F. Starting Your First Fire

1. A thermostat is required for proper operation of this appliance, except for corn. At this time, fill the hopper with pellets, set the thermostat to its lowest setting. Plug the power cord into nearby outlet.
2. The exhaust blower will stay on for approximately 18 minutes even though the thermostat is not calling for heat. This is normal.
3. Locate the heat output control switch on the lower right side of the firebox behind decorative front door. Set to the HIGH setting and then adjust the thermostat to its highest setting. The red call light will be on which is located on the top of the junction box behind the right access panel. This indicates the thermostat is calling for heat. **Figure 27.1.**
4. The fuel feed system and the igniter should now be on.
5. For your first fire it will be necessary to press the reset button once per minute until pellets start to drop into the firepot, then press button 1 more time. This will fill the feed system and allow the appliance to begin dropping pellets. The appliance will continue to run as long as the thermostat is calling for heat.
6. Once the appliance has ignited, let it burn for approximately 15 minutes, then set the thermostat to the desired room temperature. Adjust the heat output control switch to the desired setting.

NOTE: We recommend the use of a 50-50 blend of corn and wood pellets. The only change in operation is that the feed rate may require a slight adjustment. If the appliance is running all of the time, 100% corn will work after the fire has been started using wood pellets.

CAUTION

Odors and vapors released during initial operation.
- Curing of high temperature paint.
- Open windows for air circulation.

Odors may be irritating to sensitive individuals.

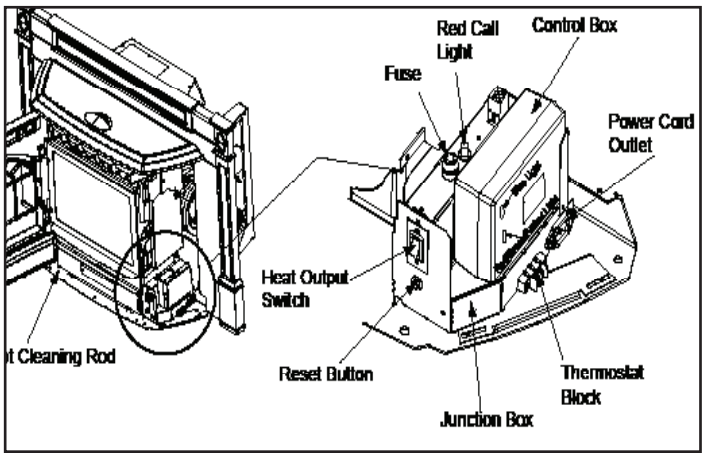


Figure 27.1

G. Fire Characteristics

A properly adjusted fire with the heat output control switch set on “HIGH” has a short active flame pattern that extends out of the firepot approximately 4 inches (102mm).

If the fire has tall flames with black tails and seems somewhat lazy, the feed rate will need to be reduced.

If the fire is not 4 inches (102mm) tall, increase the feed rate. A medium and low setting will give a shorter flame. The flame will rise and fall somewhat. This is normal.

H. Feed Rate Adjustment Instructions

The feed adjustment control rod is factory set, and should be adequate for most fuels. The control rod will slide by only loosening the wing screw.

However, if the flame height is too high or too low, you will need to adjust the feed rate. Wait until the appliance has been burning for 15 minutes before making your adjustments and allow 15 minutes for feed adjustment to take effect. Make adjustments in approximately 1/2 inch increments.

1. Loosen the wing screw. **Figure 27.2.**
2. Adjust the fuel adjustment control rod towards to the right and up to increase the feed rate and flame height or to the left and down to decrease the feed rate and flame height.
3. Re-tighten the wing screw.

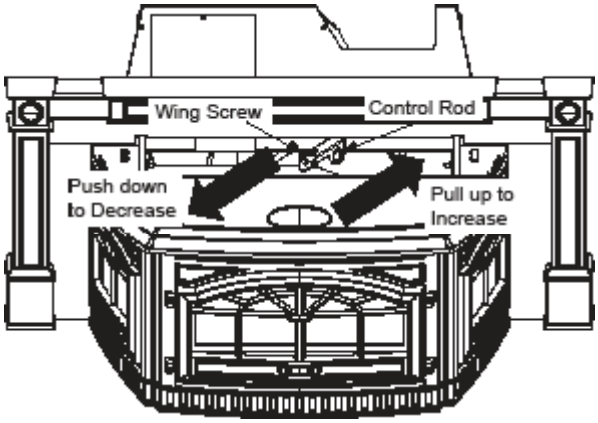


Figure 27.2

I. Insert Removal

In the case that service or inspection is required the unit may need to be removed from the wall.

1. Unit must be unplugged before removal of unit is possible. Unplug the unit from its power source.

2. Remove insert surround from unit, to ease the process of removal.

3. Unclip the exhaust transition from the exhaust outlet in the back of the unit. This is what connects the venting to the unit. Removal of the clips will allow you to remove the unit from the wall without damaging or adjusting the venting.

4. Slide unit from the wall and rotate either direction as needed.

J. Ignition Cycles

1. At the beginning of each ignition cycle, it is normal to see some smoke in the firebox. The smoke will stop once the fire starts.
2. The convection blower will automatically turn on after your appliance has reached the set temperature.

   This blower transfers heat from your appliance into the room, and will continue to run after the thermostat has stopped calling for heat until the appliance has cooled down.
3. Occasionally the appliance may run out of fuel and shut itself down. When this happens, the red call light will be on. **See Figure 27.1 on page 27.**

   To restart it, fill the hopper and press the reset button. When you press the reset button the red call light will go out. Release the button and the light will come back on. You should see a fire shortly.

   If not, follow the instructions on **page 27,** "Starting Your First Fire".

⚠ WARNING

Fire Risk
Do NOT operate appliance:
- With appliance door open.
- Firepot floor open.
- Cleaning slide plates open.

Do NOT store fuel:
- Closer than required clearances to combustibles to appliance
- Within space required for loading or ash removal.

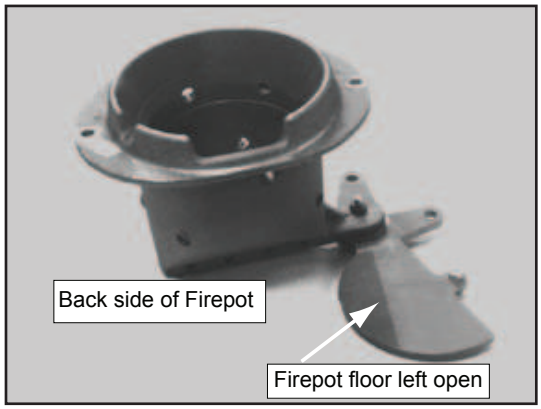


Figure 28.1 - **DO NOT LEAVE FIREPOT FLOOR OPEN**

K. Frequently Asked Questions

ISSUES	SOLUTIONS
1. Metallic noise.	1. Noise is caused by metal expanding and contracting as it heats up and cools down, similar to the sound produced by a furnace or heating duct. This noise does not affect the operation or longevity of your appliance.
2. White ash buildup on glass.	2. This is normal. Clean the glass using any non-abrasive glass cleaner.
3. Glass has buildup of black soot	3. Excessive build-up of ash. See solution #4. The lower burn settings will produce more ash, the higher burn settings produce less. The more it burns on low the more frequent cleaning of the glass is required.
4. Glass has turned dirty.	3. Excessive build up of ash. The lower burn settings will produce more ash, the higher burn settings produce less. The more it burns on low the more frequent cleaning of the glass is required.
5. Fire has tall flames with black tails and is lazy.	4. The feed rate needs to be reduced or the firepot needs cleaning. Heat exchanger or exhaust blower needs cleaning.
6. Smokey start-up or puffs of smoke from the airwash.	5. Either the firepot is dirty or there is too much fuel at start-up and not enough air. Close down feed rate 1/4 (6mm) inch at a time until this no longer happens.
6. Large flame at start-up.	6. This is normal. Flame will settle down once the fire is established.

9 Troubleshooting

With proper installation, operation, and maintenance your appliance will provide years of trouble-free service. If you do experience a problem, this troubleshooting guide will assist a qualified service person in the diagnosis of a problem and the corrective action to be taken. This troubleshooting guide can only be used by a qualified service technician.

Turn down thermostat and let the appliance completely cool.
Exhaust blower must be off.
Unplug appliance before servicing.

Symptom	Possible Cause	Corrective Action
Plug in appliance - No response.	No current to outlet.	Check circuit breaker at service panel.
	7 amp fuse defective.	Replace fuse.
	#3 snap disc tripped or defective.	Reset or replace snap disc.
	Control box defective.	Replace control box.
Call light on. No fire. No fuel in firepot.	Out of fuel.	Check hopper. Fill with fuel.
	#2 snap disc may be defective.	Replace snap disc.
	Vacuum switch not closing, no vacuum.	Check exhaust blower is plugged in and operating. Check vacuum switch is plugged in. Check vacuum hose is in good condition, clear and connected at both ends. Check thermocouple is in good condition and plugged in properly. Make sure venting system is clean. Make sure front door is closed.
	Control box defective.	Replace control box.
Call light on. No fire. Partially burned fuel in firepot.	Firepot clean-out plate not closed.	Check that firepot clean-out plate is fully closed.
	Firepot is dirty (missed ignition).	Clean firepot. Make sure there is no clinker in the firepot. **See page 32**. Clinkers may have to be broken up with firepot clean-out tool or other means.
Call light on. No fire. Unburned pellets in firepot.	Firepot clean-out plate not closed.	Check that firepot clean-out plate is fully closed.
	Firepot is dirty.	Clean firepot. Make sure there is not a clinker in the firepot. Clinkers may have to be pushed out of firepot with firepot clean-out tool or other means.
	The ignition hole between the igniter bracket and firepot is blocked.	Scrape with solid piece of wire or firepot tool.
	Igniter not working.	Remove ash drawer to see if igniter is glowing red on start-up. Check igniter wires for good connection. Replace igniter using 1/4 inch (6mm) male / female spade connectors.
	Control box defective.	Replace control box.
Slow or smoky start-up.	Firepot clean-out plate not closed.	Check that firepot clean-out is fully closed.
	Firepot is dirty.	Clean firepot. Make sure there is not a clinker in the firepot. Clinkers may have to pushed out of firepot with firepot clean-outool or other means.
	Excessive amount of fuel at start-up.	Reduce feed rate using feed rate adjustment control rod located inside hopper.

Symptom	Possible Cause	Corrective Action
Slow or smoky start-up (Cont'd)	Dirty exhaust and/or venting system.	Check for ash build up in appliance, including behind rear panels, firebox, heat exchanger, exhaust blower and venting.
Feed system fails to start.	Out of fuel.	Check hopper, fill with fuel.
	#2 snap disc may be defective.	Replace snap disc.
	Vacuum switch not closing. No vacuum.	Firebox door must be closed securely. Check exhaust blower is plugged in and operating. Check vacuum switch is plugged in. Check vacuum hose is in good condition, clear and connected at both ends. Check thermocouple is in good condition and plugged in properly. Make sure venting system is clean. **NOTE:** High winds blowing into the venting system can pressurize the firebox causing loss of vacuum.
	Feed system jammed or blocked.	Empty hopper of fuel. Use a wet/dry vacuum cleaner to remove remaining fuel, from hopper, including feed tube. Check feed chute for obstructions. Loosen 2 screws and jiggle feed assembly.
	Feed spring not turning with feed motor.	Check that set screw is tight on feed spring shaft at end of feed motor.
	Feed motor defective or not plugged in.	Check connections on feed motor, replace if defective.
No call light. Appliance does not begin start sequence.	Thermostat not set to a high enough temperature.	Adjust thermostat above room temperature.
	Snap Disc #3 tripped.	Reset snap disc.
	No power.	Connect to power.
	Fuse blown.	Replace fuse.
	Connections at thermostat and/or appliance not making proper contact.	Check connections at thermostat and appliance.
	Defective thermostat or thermostat wiring.	Replace thermostat or wiring. NOTE: To test thermostat and wiring, use a jumper wire at the thermostat block on the appliance to by-pass thermostat and wiring.
	Control box defective.	Replace control box.
Appliance fails to shut off.	Call light on.	Turn thermostat off. If call light does not go out, disconnect thermostat wires from appliance. If call light does go out, thermostat or wires are defective.

Symptom	Possible Cause	Corrective Action
Convection blower fails to start.	#1 snap disc defective.	Replace snap disc.
	Blower not plugged in.	Check that blower is plugged into wire harness.
	Blower is defective.	Replace blower.
	Control box is defective.	Replace control box.
Exhaust blower fails to start or does not shut off.	Blower not plugged in.	Check that blower is plugged into wire harness.
	Blower is clogged with ash.	Clean exhaust system.
	Blower is defective.	Replace blower.
	Control box is defective.	Replace control box.
Large, lazy flame, orange color. Black ash on glass.	Dirty appliance. Poor fuel quality, high ash content.	Clean appliance, including firepot, heat exchangers and venting system. Remove stainless steel baffle from firebox to clean ash from on top of baffle. Clean behind rear brick panels. Change fuel brand to premium.
	Firepot clean-out plate not completely closed.	Check that firepot clean-out plate is fully closed.
	Excessive amount of fuel.	Reduce feed rate using feed rate adjustment control rod located inside hopper.
Nuisance shutdowns.	Low flame.	Increase feed by opening feed rate adjustment control rod located inside hopper.
	Sawdust buildup in hopper.	Clean hopper, see **page 35.**
	Feed motor is reversing.	Check for good connections between feed motor and wire harness.
	Defective thermocouple.	Replace thermocouple.
	Defective control box	Replace control box.
	Firepot more than 1/2 full	See **page 36** for detailed instructions for “High Ash Fuel Content Maintenance”
Appliance calls for heat. Call light illuminates. Exhaust blower starts. No feed or igniter.	Thermocouple is defective or not properly plugged in.	Check connections on thermocouple or replace if defective. A flashing yellow light on the control box indicates a problem with the thermocouple.
	Defective control box	Replace control box.
Hopper lid not closed all the way	Switch or magnet is out of adjustment (auger will not function)	Close the lid. If that doesn’t work, adjust or replace the switch or magnet

10 Maintaining & Servicing Your Appliance

A. Proper Shutdown Procedure

⚠ CAUTION

Shock and Smoke Hazard

- Turn down thermostat, let appliance completely cool and exhaust blower must be off. Now you can unplug appliance before servicing.
- Smoke spillage into room can occur if appliance is not cool before unplugging.
- Risk of shock if appliance not unplugged before servicing appliance.

Follow the detailed instructions found in this section for each step listed in the chart below.

B. Quick Reference Maintenance Chart

Cleaning or Inspection	Frequency		Daily	Weekly	Monthly	Yearly
Ash Pan	Every 5 bags of fuel depending on the fuel type or ash build-up	OR		X		
Ash Removal from Firebox	Every 5 bags or more frequently depending on the fuel type or ash build-up	OR		X		
Beneath Heat Exchanger	Every 1 ton of fuel	OR			X	
Blower, Combustion (Exhaust)	More frequently depending on the fuel type	OR				X
Blower, Convection	Every 25 bags or more frequently depending on the fuel type	OR			X	
Door Latch Inspection	Prior to heating season	OR			X	
Exhaust Path	More frequently depending on ash build-up	OR				X
Firebox - Prepare for Non-Burn Season	At end of heating season	OR				X
Firepot - Burning pellets - hardwood	Every 3 bags	OR	X			
Firepot - Burning pellets - softwood	Every 5 bags	OR	X			
Firepot - Burning Corn	Every 1 bag	OR	X			
Glass	When clear view of firepot becomes obscure	OR		X		
Heat Exchanger & Drop Tube	Every 5 bags of fuel	OR		X		
Hopper	Every 50 bags of fuel or when changing fuel types	OR			X	
Top Vent Adapter	More frequently depending on the fuel type or ash build-up	OR				X
Venting System	More frequently depending on the fuel type	OR				X

C. General Maintenance

1. Types of Fuel

Depending on the type of fuel you are burning will dictate how often you have to clean your firepot.

If the fuel you are burning has a high dirt or ash content or you are burning shelled field corn, it may be necessary to clean the firepot more than once a day.

Dirty fuel will cause clinkers to form in the firepot. A clinker is formed when dirt, ash or a non-burnable substance is heated to 2000°F (1093°C) and becomes glass-like. See "**D" page 36** in this section for more details on fuels with high ash content.

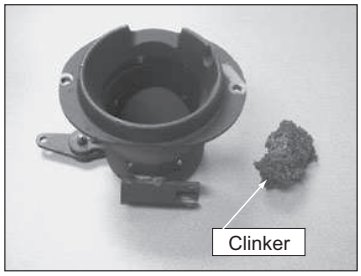


Figure 32.1 - Clinker

NOTICE: These are recommendations. Clean more frequently if you encounter heavy build-up of ash at the recommended interval or you see soot coming from the vent. ***Not properly cleaning your appliance on a regular basis will void your warranty.***

2. Cleaning Firepot with Cleaning Rod & Firepot Clean-Out Tool

- **Frequency:** Daily or more often as needed
- **By:** Homeowner

a. The appliance must be in complete shutdown and cool and the exhaust blower off. NOTE: If you are just cleaning the firepot, there is no need to unplug the insert.

b. Pull firepot cleaning rod OUT and IN a couple of times to help shake debris loose. **See Figure 43.3 on page 43.**

If rod is hard to pull, it may be necessary to use your firepot clean-out tool to chip away material that has built up on the bottom plate of the firepot and to push out any clinkers. Larger clinkers may have to be removed from the top of the firepot. Corn clinkers can be especially difficult to break up.

c. The firepot floor plate must be fully closed when finished. **See Figure 28.1 on page 28.**

3. Ash Removal from Firebox

- **Frequency:** Weekly or 5 bags or more frequently depending on ash build-up
- **By:** Homeowner

a. There must not be any hot ashes in the firebox during cleaning so allow the appliance to completely cool. The firebox ash should be removed every time the exhaust path is cleaned. Frequent cleaning of the ash in the firebox will help slow down the build-up of ash in the exhaust blower and vent system.

b. Plug in your appliance, if unplugged, and turn the thermostat on and immediately shut it off to start the exhaust blower on its cycle time. It will pull fly ash out the exhaust instead of into the room.

c. Open door. There are 2 cleaning slide plates to the left and right of the firepot with finger holes. Pull both slide plates out and sweep the remaining ash from the firebox into the 2 open holes. A paint brush works well for this. Close slide plates.

d. This ash is deposited in the same ash drawer as the firepot debris. The ash drawer should be emptied every time you clean the firebox. Remember to place the ash and debris into a metal or non-combustible container.

e. The 2 cleaning slide plates must be fully closed when cleaning is complete.

4. Cleaning Ash Drawer

- **Frequency:** Weekly or every 5 bags or more frequently depending on ash build
- **By:** Homeowner

Locate the ash drawer underneath the firepot and slide the ash drawer straight out. Empty into a non-combustible container and re-install ash drawer.

5. Disposal of Ashes

- **Frequency:** As needed
- **By:** Homeowner

Ashes should be placed in a metal container with a tight-fitting lid. The closed container of ashes should be placed on a non-combustible floor or on the ground, well away from all combustible materials, pending final disposal.

If the ashes are disposed of by burial in soil or otherwise locally dispersed, they should be retained in the closed container until all cinders have been thoroughly cooled.

WARNING

Disposal of Ashes

- Ashes should be placed in metal container with tight fitting lid.
- Ashes should be retained in closed container until all cinders have thoroughly cooled.

WARNING

Fire Risk

- NEVER pull firepot cleaning rod or cleaning slide plates when appliance is operating. Hot pellets may fall into ashpan and may start a fire or have mis-starts due to lack of vacuum.

WARNING

Fire Risk.

- The cleaning slide plates must be fully CLOSED when appliance is operating. Hot pellets may fall into ash pan and start a fire.

6. Cleaning Heat Exchanger Tubes

- **Frequency:** Weekly or every 5 bags of fuel
- **By:** Homeowner

The amount of ash buildup in the firebox will be a good guide to determine how often you should clean the heat exchangers.

a. Allow the appliance to completely cool down before pulling the cleaning rods. Turn the thermostat on and then immediately off to start the exhaust blower on its cycle time. It will pull fly ash out the exhaust instead of into the room.

b. Locate the 2 exposed rods directly underneath the heat exchanger tubes. **Figure 34.1.**

c. To clean, pull the rods straight out until it stops, approximately 8 inches (203mm). Slide the rods OUT and IN a couple of times.

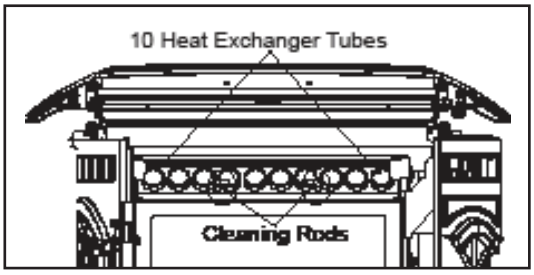


Figure 34.1

⚠ WARNING

Heat exchanger cleaning rods may be warm to the touch. For safety purposes wear gloves.

Do not pull heat exchanger cleaning rods while appliance is operating.

Push cleaning rods IN when done, DO NOT leave cleaning rods OUT. Injury can occur.

7. Cleaning Beneath Heat Exchanger

- **Frequency:** Monthly or every 1 ton of fuel
- **By:** Homeowner

A more thorough cleaning is needed to remove the excess ash that is left behind from the use of the cleaning rods for the heat exchanger tubes. The ash will be resting on the back of the baffle.

This will require removing the baffle and cast brick set. Please refer to **pages 39 & 40** for a detailed explanation of removing the baffle and brick set.

NOTE: Hearth & Home Technologies recommends using a heavy duty vacuum cleaners specifically designed for solid fuel appliance cleaning.

8. Cleaning the Glass

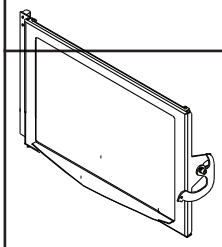
- **Frequency:** When clear view of the firepot is obscure
- **By:** Homeowner

a. Appliance must be completely cool before cleaning glass.

b. Vacuum fly ash from the glass and door rope.

c. Use a damp paper towel or any non-abrasive glass cleaner. Wipe off with dry towel.

CAUTION

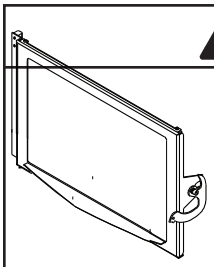


Handle glass assembly with care.

When cleaning glass:

- Avoid striking, scratching or slamming glass.
- Do NOT clean glass when hot.
- Do NOT use abrasive cleaners.
- Use a hard water deposit glass cleaner on white film.
- Refer to maintenance instructions.

⚠ WARNING



Handle glass with care.

- Inspect the gasket to ensure it is undamaged.
- Do NOT strike, slam or scratch glass.
- Do NOT operate appliance with glass assembly removed.
- Do NOT operate with glass cracked, broken or scratched.

9. Door Latch Inspection

- **Frequency:** Prior to heating season
- **By:** Homeowner

The door latch is non-adjustable but the gasketing between the glass and firebox should be inspected periodically to make sure there is a good seal.

NOTE: There is no gasket on the bottom of glass.

10. Cleaning the Hopper

- **Frequency:** Monthly or every 50 bags of fuel
- **By:** Homeowner

After burning approximately 1 ton of fuel you will need to clean the hopper to prevent sawdust build-up. A combination of sawdust and pellets on the auger reduces the amount of fuel supply to the firepot. This can result in nuisance shutdowns and mis-starts.

1. The appliance must be in complete shutdown. Allow the appliance to completely cool down.
2. Empty the hopper of any remaining pellets.
3. Vacuum the hopper and feed tube.

11. Cleaning Exhaust Blower - Requires No Lubrication

- **Frequency:** Yearly or as needed
- **By:** Quality Service Technician/Homeowner

a. Remove left & right cast brick. The exhaust blower is behind the right cast brick. Vacuum this area thoroughly. See **pages 39 & 40** for removing the cast bricks. Re-install cast bricks when done.

12. Cleaning Convection Blower - Requires No Lubrication

- **Frequency:** Yearly or as needed
- **By:** Qualified Service Technician
- **Task: Contact your local dealer.**

13. Soot and Fly Ash: Formation & Need for Removal in Exhaust Venting System.

- **Frequency:** Yearly or more frequently depending on ash build-up
- **By:** Qualified Service Technician/Homeowner

The products of combustion will contain small particles of flyash. The flyash will collect in the exhaust venting system and restrict the flow of the flue gases. Incomplete combustion, such as occurs during startup, shutdown, or incorrect operation of the room heater will lead to some soot formation which will collect in the exhaust venting system. The exhaust venting system should be inspected at least once every year to determine if cleaning is necessary.

The venting system may need to be cleaned at least once a year or more often depending upon the quality of your fuel or if there is a lot of horizontal pipe sections. Ash will build up more quickly in the horizontal sections.

14. Preparing Firebox for Non-Burn Season

- **Frequency:** At the end of the heating season
- **By:** Homeowner

a. Be sure the appliance is allowed to cool, has been unplugged and the exhaust blower is off.

b. Remove all ash from the firebox and vacuum thoroughly.

c. Paint all exposed steel, including cast-iron.

- Use the Touch-Up paint supplied with the appliance; or,
- Purchase paint from your local dealer.
- Must use a high-temperature paint made specifically for heating appliances.

D. High Ash Fuel Maintenance

- **Frequency:** When the ash build-up exceeds more than half way up the firepot.
- **By:** Homeowner

Poor quality pellet fuel, or lack of maintenance, can create conditions that make the firepot fill quickly with ashes and clinkers.

This condition makes the appliance susceptible to overfilling the firepot with pellets which may result in smoking, sooting and possible hopper fires. **Figure 36.1** shows an example where the firepot overfills, pellets back up into the feed tube and ash has accumulated in the firebox.

An inefficient and non-economical method of burning of fuel caused by poor quality pellet fuel is shown in **Figure 36.2**.

The correct flame size when good quality, premium pellet fuel is burned is shown in **Figure 36.3**.

If the ash buildup exceeds the half way point in the firepot **IMMEDIATE ATTENTION AND CLEANING IS REQUIRED.**

⚠ WARNING

Fire Risk.

- High ash fuels, or lack of maintenance, can cause the firepot to overfill. Follow proper shutdown procedure if ash buildup exceeds half way point in firepot.
- Failure to do so could result in smoking, sooting and possible hopper fires.

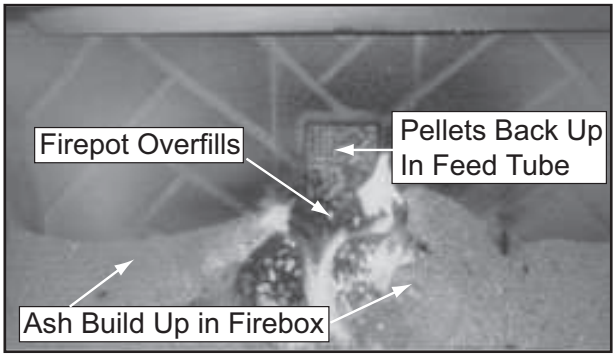


Figure 36.1

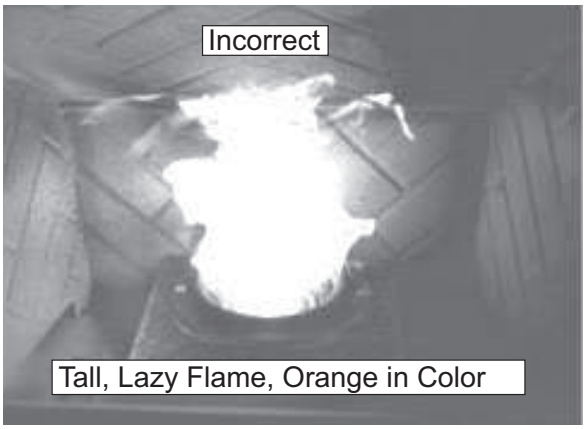


Figure 36.2

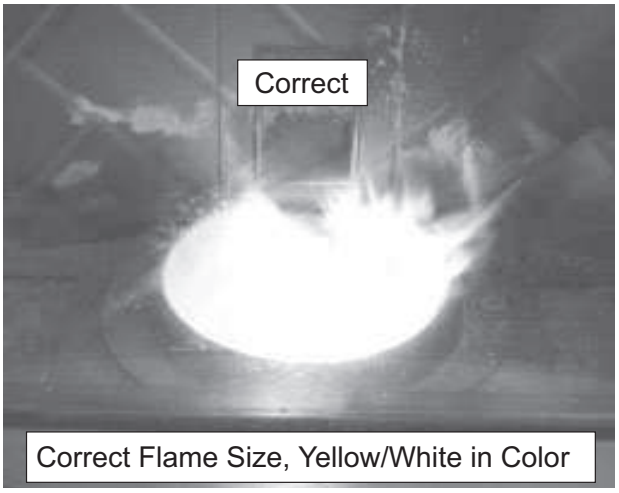


Figure 36.3

E. Combustion Blower Replacement

1. If you have adequate clearance you will not have to remove the panel set and disconnect flue, if not then you will have to remove the panel set and disconnect the flue.
2. Pull appliance out onto the hearth.
3. Remove right cast side.
4. Disconnect the white and blue wires from the blower.
5. Remove blower mounting screws (not housing bolts), **Figure 37.1**, from blower housing and remove blower. The replacement blower is shipped with a housing. If you do not need the housing, discard it. If you do need to the replace the housing you will also need to replace the gasket. See Service Parts List for the part number.
6. Re-install in reverse order.

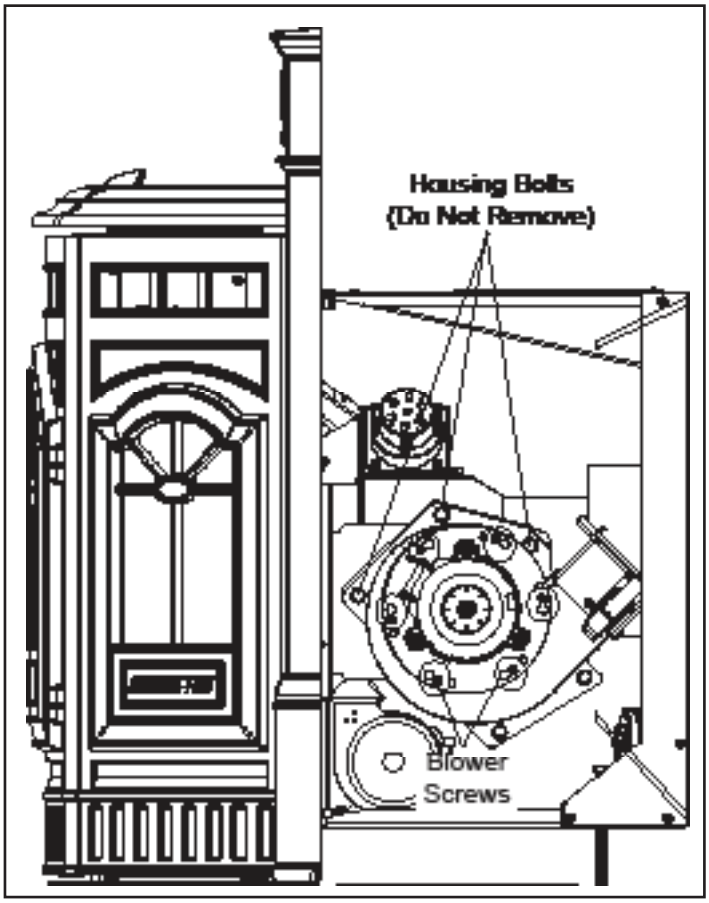


Figure 37.1

F. Convection Blower Replacement

1. The blower is located at the bottom rear of the insert. If an outside air kit is also installed, you will first need to remove the outside air flange by removing the 2 screws using a Phillips head screwdriver. You do not need to remove the flex pipe from the flange.
2. If you have adequate clearance you will not have to remove the panel set and disconnect flue, if not then you will have to remove the panel set and disconnect the flue.
3. Pull appliance out onto the hearth.
4. Remove left cast side.
5. Disconnect the wires from the blower. The wires coming from the wiring harness are purple & white and the wires from the blower are black.
6. The blower is held in place with a wing screw.
7. Re-install in reverse order.

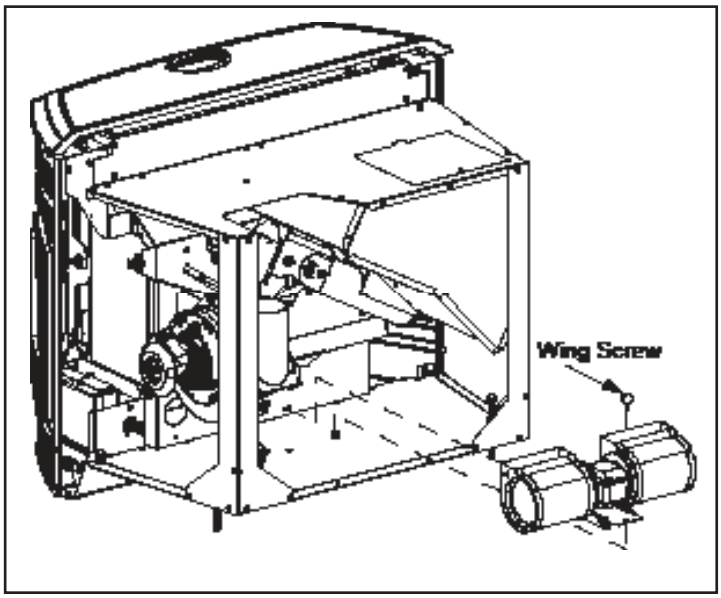


Figure 37.2

G. Igniter Replacement

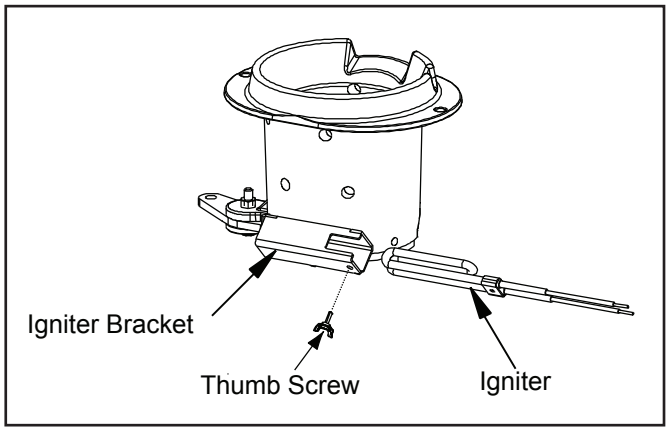


Figure 38.1

1. Shut down the appliance by turning down the thermostat and let the appliance completely cool down**.** After the appliance has cooled down, unplug it and remove the ash drawer.
2. The wire leads to the igniter are connected to the wire harness with 1/4 inch (6mm) male / female spade connectors. These wires will pull forward approximately 4 to 5 inches (102mm to 127mm) through the grommet at the back of the ash drawer chamber. Disconnect the spade connections and remove the igniter from the chamber. LooseN the thumb screw and slide igniter out.
3. Install new igniter into the chamber and tighten the thumb screw. Re-connect the wires to the 2 leads with the spade connectors.
4. Push excess wire leads back through the grommet, one wire at a time, to take-up the 4 to 5 inches (102mm to 127mm) previously pulled out. This will keep the wires out of the way of the ash drawer. Double check that the igniter wires are clear of any movement, i.e. ash drawer, firepot cleaning rod, cleaning slide plates, etc.
5. Re-install the ash drawer and then re-install the side panel and re-connect the power.

H. Glass Replacement

⚠ WARNING

- Glass is 5mm thick high temperature heat-resistant ceramic glass.
- DO NOT REPLACE with any other material.
- Alternate material may shatter and cause injury

1. Open the face and remove door from the appliance by lifting door off of hinge pin and and lay on a flat surface face down.
2. Using a screwdriver, tap the bottom of the rope retainer rod to push it up out of the hole. The top end of the rod will slide up. Swing the rod toward you from the bottom and remove the rod. Repeat for other side.
3. Remove old glass and replace with new glass.
4. Slide the retainer rod into the top hole first, and then line up the bottom crimped end with the hole in the door. The crimped end must be parallel with the glass in order to insert it into place. **Figure 38.2.**

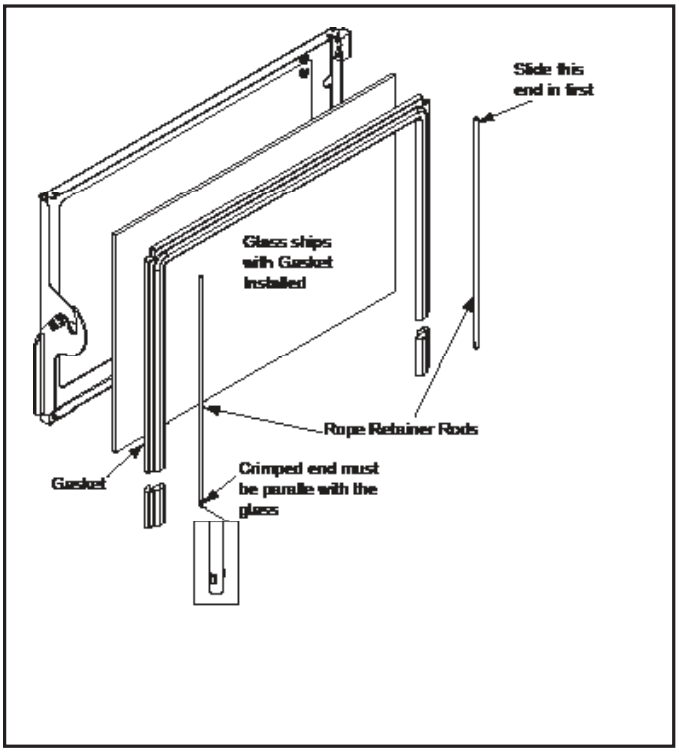

Slide this end in first
Glass ships with Gasket Installed
Rope Retainer Rods
Gasket
Crimped end must be parallel with the glass

Figure 38.2

I. Baffle & Brick Set Removal

1. Follow proper shutdown procedures in Section 10.
2. The top baffle has a hook on the bottom left side that rests on the top lip of the cast brick. There is a tab on the bottom right side that hooks into the side bracket. Remove the top baffle by first pulling the baffle forward until back edge drops down. Then slide baffle back and down until the front edge clears the shelf that it had been resting on. **Figure 39.1.**
3. The top baffle must be removed before you can remove the right and left brick. Remove the right brick by holding top lip of brick and lifting up, then push outside edge back. Slide brick to the right until it is flush with the firebox. Rotate the inside edge of the brick forward and remove brick. Repeat for left brick. **Figure 39.2.**

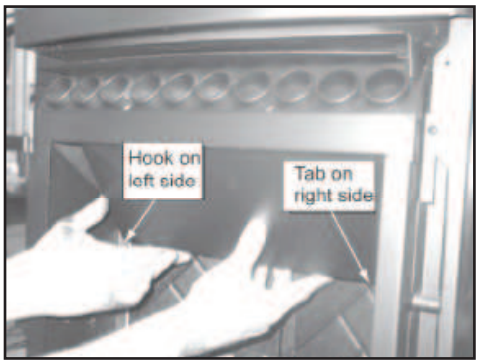


Figure 39.1

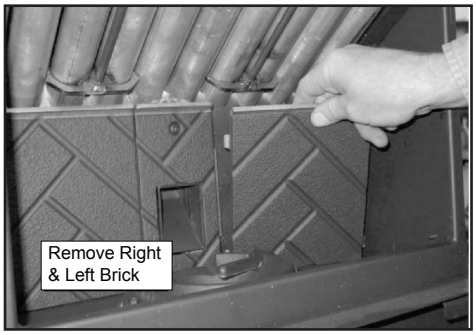


Figure 39.2

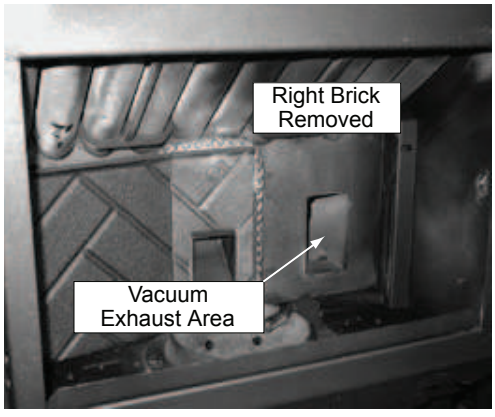


Figure 39.3

Re-installing Baffle & Brick Set

1. Place right brick in behind the right bracket, and then slide to the left so the tabs are behind the center brick. **Figure 39.4.**
2. The brick will be flush against the back wall and notches exposed in the side bracket. **Figure 39.5.**
3. Lift slightly and pull the right edge of the brick forward until it stops and then drops down into both top and bottom notches of right bracket and locks into place. **Figures 39.1 and 39.2.**
4. Repeat for left brick.
5. Insert baffle into top front inside the firebox and pull forward. Then raise up the bottom end and insert baffle tab into slot on the top of the right bracket to lock into place. **Figure 39.3.** Place the left side hook at the bottom of the baffle over the top edge of brick for stability. **Figure 37.4.**
6. The baffle does not completely cover the top of the firebox. There is an opening on the left as shown in **Figure 40.5 on page 40.**

   NOTE: Improper installlation can cause poor appliance performance.

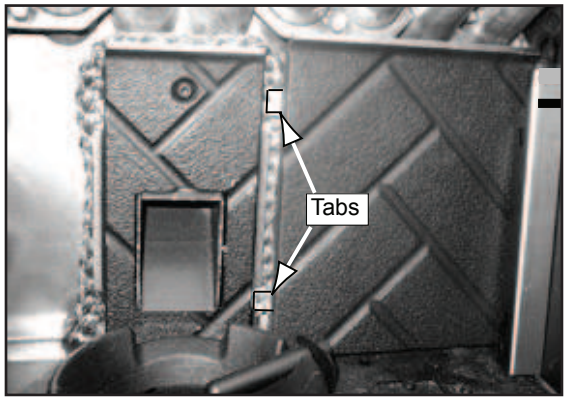


Figure 39.4

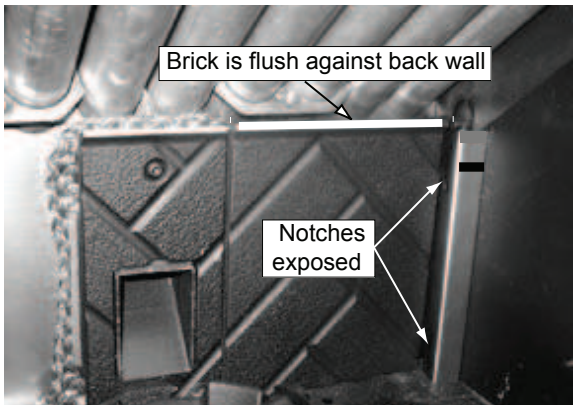


Figure 39.5

Re-installing Baffle & Brick Set (Cont'd)

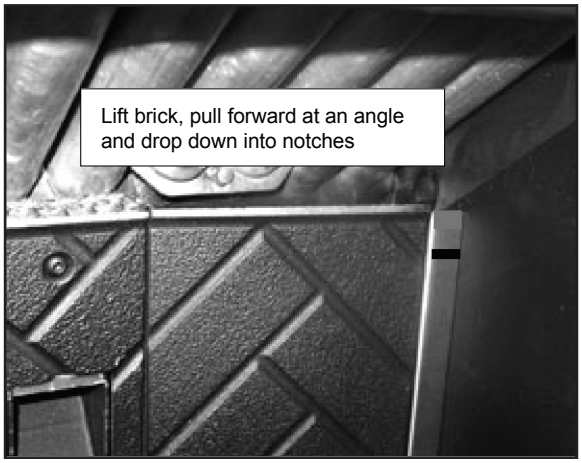


Figure 40.1

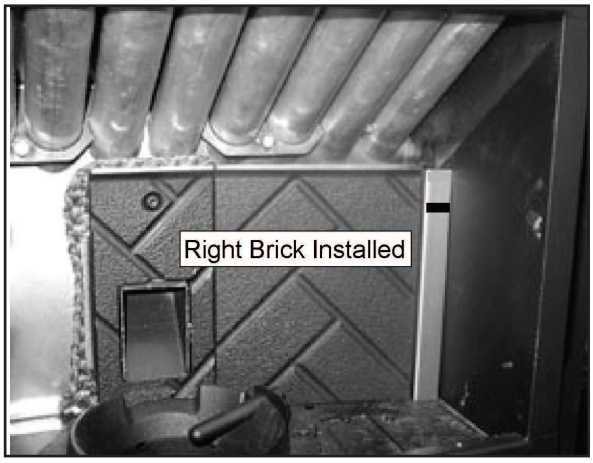


Figure 40.2

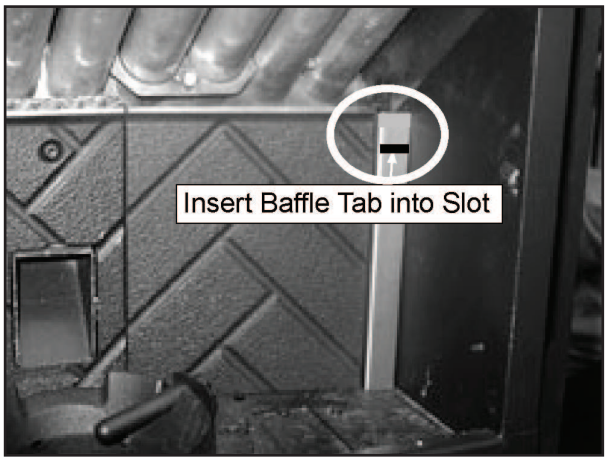


Figure 40.3

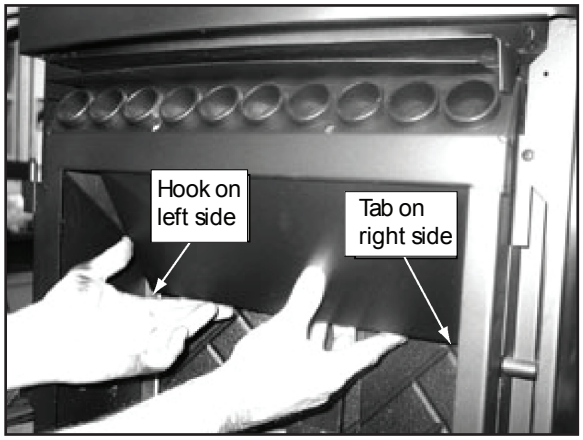


Figure 40.4

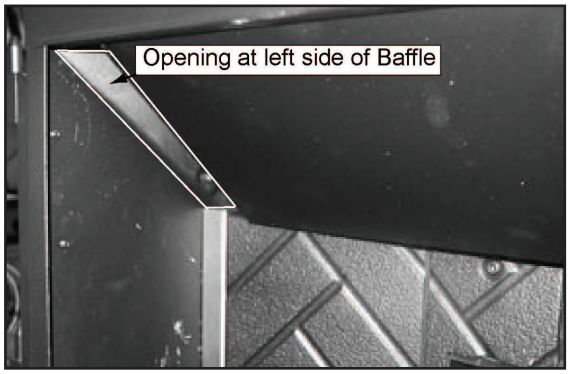


Figure 40.5

11 Reference Materials

A. Component Function

When describing the location of a component part it is always AS YOU FACE THE FRONT OF THE APPLIANCE.

1. Control Box

a. The control box is located on lower right side of appliance, on top of the junction box.

b. There is a light located inside of the control box. The internal light will turn green when the appliance has reached a temperature of 200°F (93°C) in the firepot. and will turn red when it reaches 600°F (315°C).

c. There is also an internal blue light located in the upper left corner of the control box. When you plug in the appliance the blue light will automatically start blinking 4 blinks every 10 seconds for 60 seconds (depending upon setting) and then will stop.

NOTE:

Do **NOT** open the control box. This will void the warranty. If you need to plug in or remove the control box you must first **unplug the appliance.**

2. Convection Blower

The convection blower is mounted at the bottom rear of the appliance. There are 2 impellers, one on each side of the motor. The convection blower pushes air through the heat exchange system into the room.

3. Exhaust Blower

The exhaust blower is mounted on the right side of the appliance behind the right side panel. The exhaust blower is designed to pull the exhaust from the appliance and push it out through the venting system.

4. Feed System

The feed system is located behind the firebox and can be removed as an entire assembly. The assembly includes the feed motor, mounting bracket, bearing and feed spring (auger). The hollow feed spring (auger) pulls pellets up the feed tube from the hopper area and drops them down the feed chute into the firepot at a set rate. The feed motor starts and stops every 7 seconds.

5. Firepot

The firepot is made of high quality ductile iron and has a cleaning pull-out rod. The floor of the firepot opens for cleaning when you pull out the rod. Be sure that the floor returns to a completely closed position or your appliance will not operate properly.

6. Fuse

The fuse is located on the side of the junction box near the red call light. The fuse will blow should a short occur and shut off power to the appliance.

7. Heat Exchangers

The heat exchangers transfer heat from the exhaust system into convection air. There are 2 clean out rods located under the heat exchangers.

8. Heat Output Switch

The heat output switch is located on the lower right side of firebox, behind the front access door and above the reset button. The function of the heat output switch is to regulate the burn rates; low, medium and high settings.

9. Hopper Switch

The hopper switch is located in the upper right hand corner, outside of the hopper. This switch is designed to shut down the feed motor whenever the hopper lid is opened.

10. Igniter

The igniter is mounted on the base of the firepot. Combustion air travels over the red hot igniter creating super heated air that ignites the pellets.

11. Junction Box And Wiring Harness

The junction box is located on the lower right side of the appliance, behind the left front access door. The junction box and wiring harness are replaced as one component.

12. Power Supply

The power outlet is located on the lower right side of the appliance on the front of the junction box. Check the wall receptacle for 120 volt, 60 Hz (standard current). Make sure the outlet is grounded and has the correct polarity. A good surge protector is recommended. When operating with a generator you need a least 600 watts of power, or with an inverter at least 800 watts of power available for the appliance during the start cycle.

13. Red Call Light

The red call light is on the top of the junction box by the fuse. The function of the red call light is to indicate that the thermostat is calling for heat.

14. Reset Button

The reset button is located on the lower right side of firebox in behind the access door and below the heat output control switch. The function of the switch is to momentarily open the thermostat circuit, which restarts the system.

15. Thermocouple

The thermocouple is located on top of the firepot inside the thermocouple cover (ceramic protection tube). The thermocouple sends a millivolt signal to the control box indicating the preset temperatures of the green and red lights

have been obtained.

16. Thermostat

The appliance is designed to run on a 12 volt AC thermostat. The heat anticipator, if present, should be set on the lowest setting available.

17. Snap Disc #1 (Convection Blower) 110°F

Snap disc #1 is located on the right side of the firebox. There are 2 purple wires connected to it. This snap disc turns the convection blower on and off as needed. Power is always present at snap disc #1 if the stove is powered up.

18. Snap Disc #2 (Fuel Delivery Interrupt) 250°F

Snap disc #2 is located on the back side of the feed drop tube. There is 1 orange wire and 1 black wire connected to it. This snap disc will turn off the feed system, which will turn off the appliance if an overfire condition should occur or if the convection blower should fail to operate. If this occurs the snap disc with automatically reset itself.

19. Snap Disc #3 (Burn Back Protector) 250°F

Snap disc #3 is mounted on the back of the auger tube in the center of the appliance and has a reset button. To access it remove the right side panel. If the fire tries to burn back into the feed system or push exhaust up the feed tube, this snap disc will shut the entire system off. This disc must be manually reset. Power is always present at snap disc #3 if the stove is powered up.

20. Vacuum Switch

The vacuum switch is located on the lower right side of the appliance behind left access panel. This switch turns the feed system on when vacuum is present in the firebox. The vacuum switch is a safety device to shut off the feed motor if the exhaust or the heat exchanger system is dirty or plugged or if the firebox door is open.

21. Wiring Schematic

See Figure 42.1 below

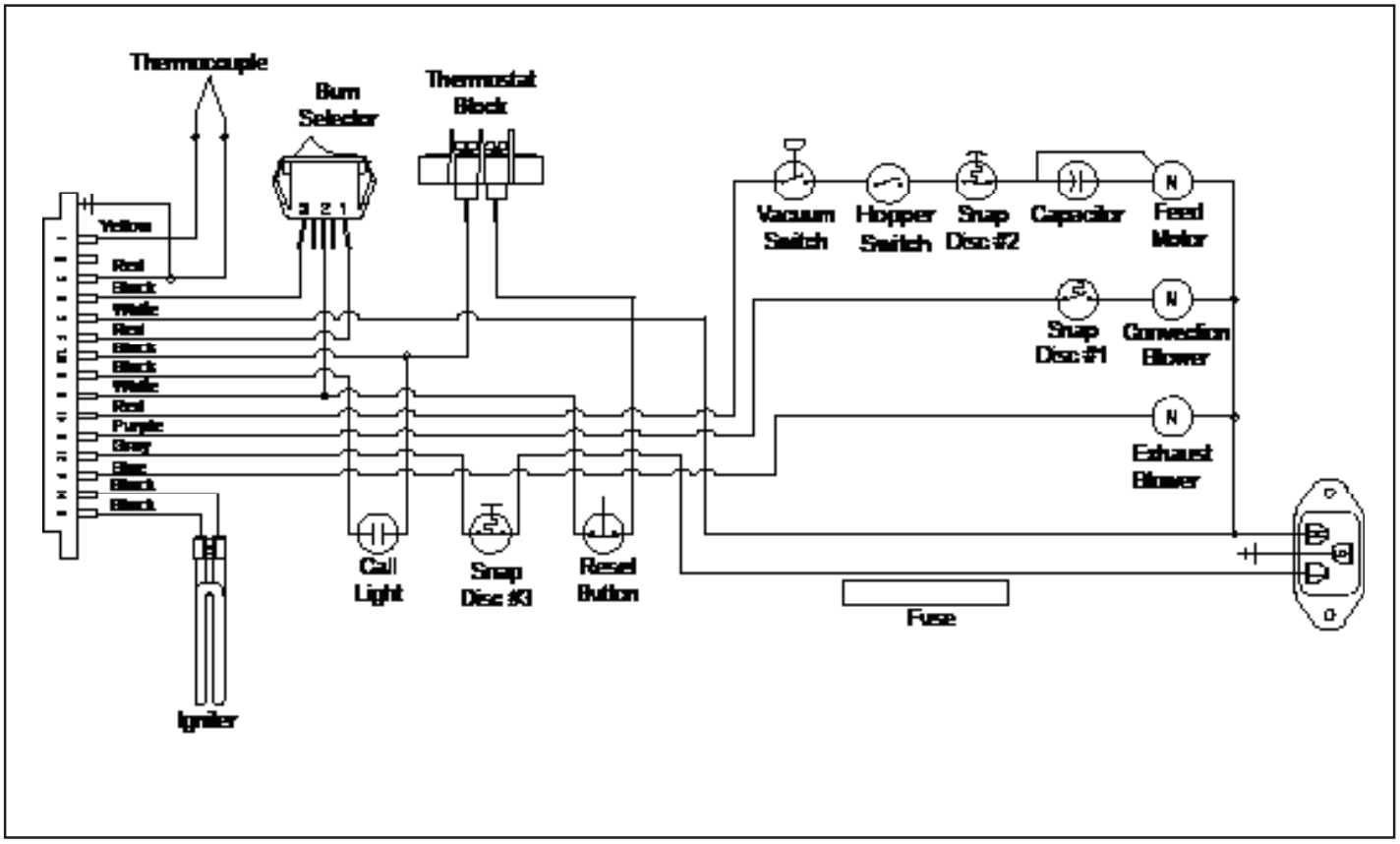


Figure 42.1

B. Component Locations

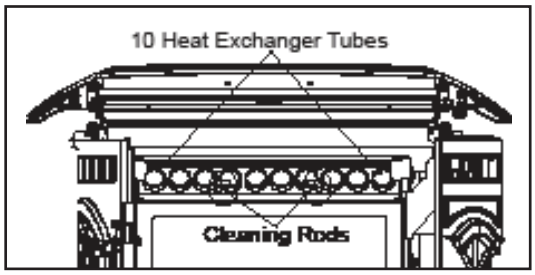


Figure 43.1 - Cleaning Rods & Heat Exchanger Tubes

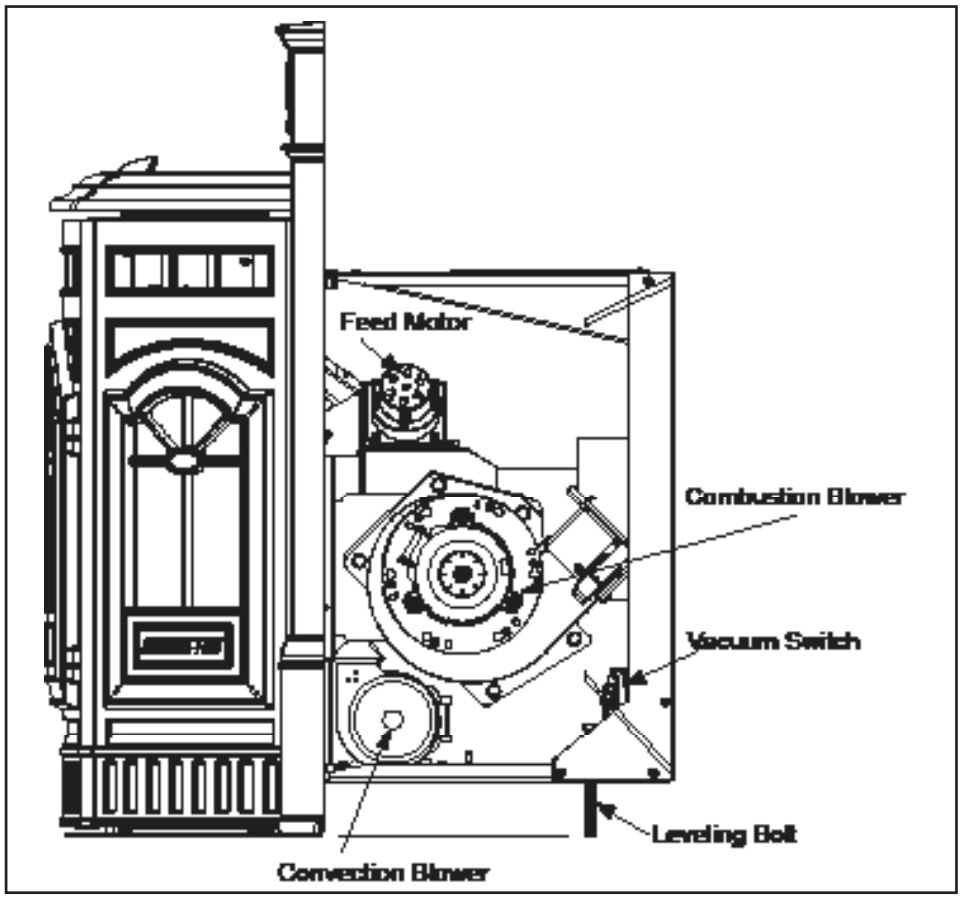


Figure 43.2

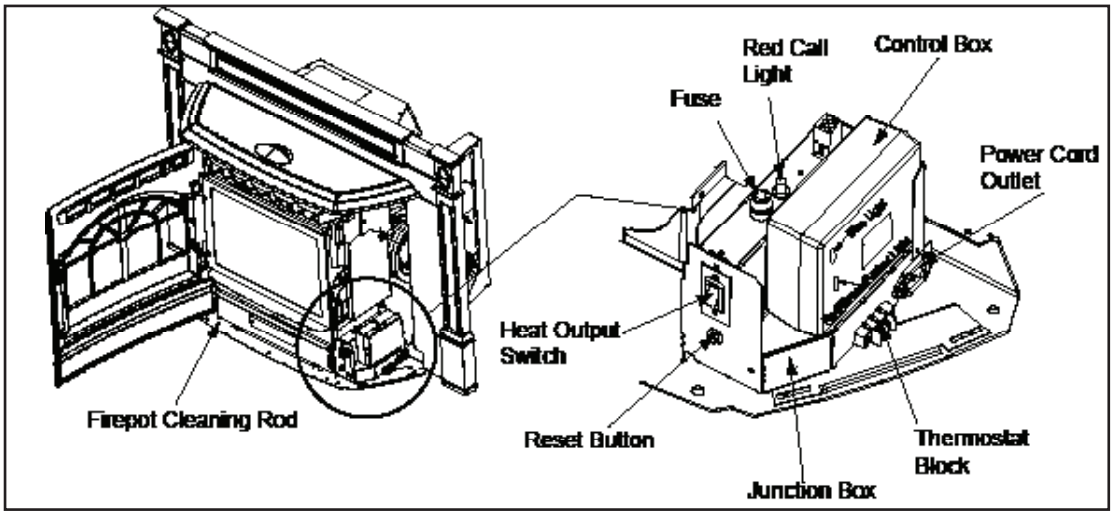
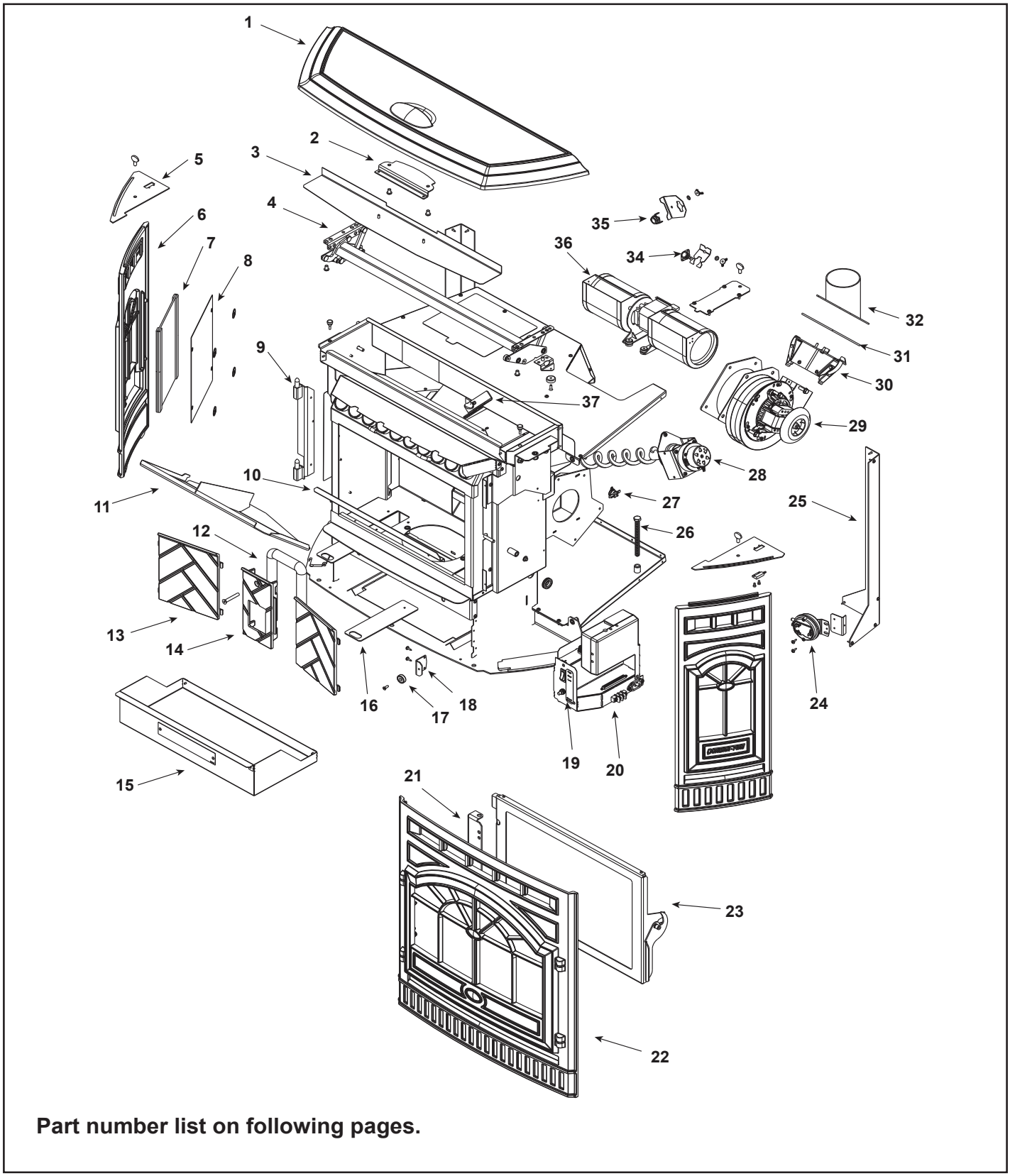


Figure 43.3

Castile Pellet Insert

Beginning Manufacturing Date: Feb 2011
Ending Manufacturing Date: Active

CASTILEI-MBK, CASTILEI-PMH, CASTILEI-CSB
CASTILEI-CWL (Feb 2011 Thru June 2011)



Part number list on following pages.

Figure 44.1

Castile Insert-B

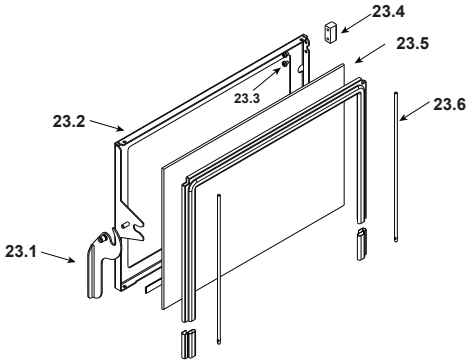
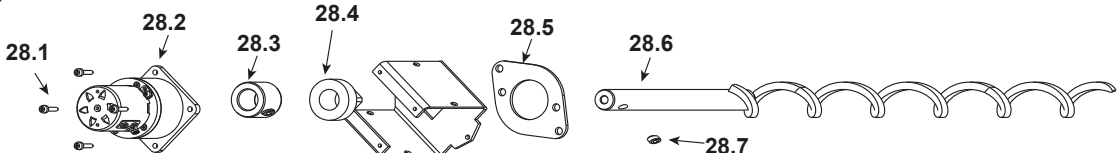
Beginning Manufacturing Date: Feb 2011
Ending Manufacturing Date: Active

IMPORTANT: THIS IS DATED INFORMATION. When requesting service or replacement parts for your appliance please provide model number and serial number. All parts listed in this manual may be ordered from an authorized dealer.

ITEM	DESCRIPTION	COMMENTS	PART NUMBER	Stocked at Depot
1	Top Cast - Must specify color	Matte Black	7022-129BK	
		Porcelain	7022-129POR	
		Powder Coat	7022-129PWD	
2	Handle Cover Plate		SRV7022-144	
3	Heat Shield, Top		SRV7022-143	
4	Hinge Assembly, Top		7036-006P	
5	Side Cast Hook		SRV7022-132	
	Thumb Screw, 1/4-20 x 1/2	Pkg of 10	7000-617/10	**Y**
6	Side - Must specify color	Matte Black	414-0050BK	
		Porcelain Color	414-0050POR	
		Powder Coat	414-0050PWD	
7	Glass Assembly, Side, 1 Piece - 5-7/8 in. W x 9 in. H	Interchangeable	414-5380	**Y**
	Gasket, Channel 1/8 x 1-1/4	10 Ft.	7000-377/10	**Y**
8	Backer, Side Window	Interchangeable	414-0280	
9	Door Hinge Assembly		SRV7022-012	**Y**
	Hinge, Door, Male		450-2810	
10	Deflector, Bottom Airwash		413-0680	
11	Baffle Assembly		7001-034	**Y**
12	Door Rope, 7/8”	8 Ft	842-2350	**Y**
13	Brick, Left / Right, Cast		414-0270	
14	Brick, Center, Cast		414-0260	
15	Ash Pan Assembly		SRV414-6240	
16	Plate, Ash Cleanout		7001-186	
17	Magnet Round		SRV7000-140	**Y**
18	Bracket, Magnet		414-0930	
19	Wire Harness		SRV414-1040	**Y**
20	Control Board 3 Speed		SRV7000-205	**Y**
	Fuse, 8 Amp, Control Box	Pkg of 10	812-3780/10	**Y**
21	Face Hinge		SRV7022-138	
22	Face - Must specify color	Matte Black	414-0040BK	
		Porcelain Color	414-0040POR	
		Powder Coat	414-0040PWD	

Additional service part numbers appear on following page.

IMPORTANT: THIS IS DATED INFORMATION. When requesting service or replacement parts for your appliance please provide model number and serial number. All parts listed in this manual may be ordered from an authorized dealer.

ITEM	DESCRIPTION	COMMENTS	PART NUMBER	Stocked at Depot
#23 Door Assembly 				
23	Door Assembly		SRV7021-007	
23.1	Door Latch Assembly		7021-006	
23.2	Door Frame		SRV7021-114	
23.3	Screw, Pan Head Philips, 10/32 x 1/4	Pkg of 24	229-1230/24	**Y**
23.4	Hinge, Female		450-2910	
23.5	Glass Assembly (w/gasket) 17-1/4" W x 11-5/8" H		7001-038	**Y**
	Gasket, Tadpole	10 Ft	842-5130	**Y**
	Tape, 1/2" x 1/16	10 Ft	240-0290/10	**Y**
	Tape, Door Corner		SRV7027-227	**Y**
23.6	Retainer, Rope		7001-192	**Y**
24	Vacuum Switch		SRV7000-531	**Y**
25	Corner Post		SRV7022-104	
26	Bolt, GRD 2 Tap 3/8 x 4		223-0140	
27	Snap Disc, 110-20		SRV230-1220	**Y**
#28 Feed Assembly 				
28	Feed Assembly		812-4760	**Y**
28.1	Screw, 8-32 x 3/8 PH,TF	Pkg of 40	225-0500/40	**Y**
28.2	Feed Motor		812-4421	**Y**
28.3	Collar, Set, 7/8		229-0520	
28.4	Bearing, Feed System, Nylon		SRV7000-598	**Y**
28.5	Gasket, Feed Motor		240-0731	**Y**
28.6	Feed Spring Assembly		SRV7001-046	**Y**
28.7	Set Screw 5/16-18 x 1/4	Pkg of 25	225-0550/25	**Y**

Additional service part numbers appear on following page.

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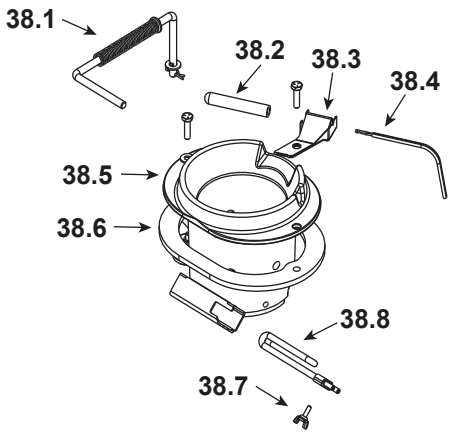
ITEM	DESCRIPTION	COMMENTS	PART NUMBER	Stocked at Depot
29	Blower, Exhaust Combustion		812-4400	**Y**
	Gasket, Exhaust Combustion Blower (between…)	...Housing & Stove	240-0812	**Y**
		...Housing & Motor	812-4710	**Y**
30	Exhaust Transition Assembly		414-5100	
	Latch, Draw		229-0230	
31	Gasket, Flue Adapter		7036-180	**Y**
32	Exhaust Adapter Assembly		SRV414-5850	
33	Blower Retainer		SRV7058-148	
34	Snap Disc, #2		SRV7000-268	**Y**
35	Snap Disc, Manual Reset, # 3		SRV230-1290	**Y**
36	Blower, Convection		812-4900	**Y**
37	Feed Adjustment Plate		SRV7022-119	

#38 Firepot and Associted Parts



38.1	Firepot Pull Rod Assembly		414-5270	**Y**
	Spring, Firepot		200-2050	
	Washer, 1/4 Sae	Pkg of 24	28758/24	**Y**
38.2	Thermocouple Cover	Pkg of 10	812-4920	**Y**
38.3	Thermocouple Clamp		SRV7001-203	**Y**
38.4	Thermocouple		812-4470	**Y**
38.5	Firepot Assembly		SRV414-5200	**Y**
	Bushing, Firepot		410-8320	**Y**
	Floor, Firepot		414-0290	**Y**
38.6	Gasket, Firepot		240-0930	**Y**
	Nut, Lock 1/4-20	Pkg of 25	226-0090/25	**Y**
	Bolt, Firepot, 1-1/4” Long	Pkg of 25	225-0120/25	**Y**
38.7	Wing Thumb Screw 8-32 x 1/2	Pkg of 24	7000-223/24	**Y**
38.8	Heating Element Assembly 18” (Loop Igniter)	Pkg of 1	SRV7000-462	**Y**
		Pkg of 10	SRV7000-462/10	**Y**

Additional service part numbers appear on following page.

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ITEM	DESCRIPTION	COMMENTS	PART NUMBER	Stocked at Depot
	Component Pack Assembly (Includes Firepot Cleanout Tool, Touch-Up Paint, Power Cord, Thermostat Wire Harness, Owners Manual, Warranty Card, “How-To” Dvd	Mahogany	SRV7022-023	
		Matte Black	SRV7022-020	
		Sienna Bronze	SRV7022-021	
		Willow	SRV7022-022	
	Cleanout Tool		414-1140	**Y**
	Dvd Original Energy Insert		7000-441	
	Paint Touch-Up	Matte Black	812-0910	
		Mahogany	855-1450	
		Sienna Bronze	TOUCHUP-CSB	
		Willow	TOUCHUP-CWL	
	Power Cord		812-1180	**Y**
	Harness, Thermostat Wire		230-0810	
	Fuse, 7 Amp, Junction Box	Pkg of 10	812-0380/10	**Y**
	Hose, Vacuum, 5/32 Id	3 Ft	SRV240-0450	**Y**
	Magnetic Switch		7000-375	**Y**
	Wire Harness, Hopper Switch		SRV414-1220	**Y**
OPTIONAL ACCESSORIES				
	Adjustable Hearth Support - 12” x 50”, 2-10” H		ADJSPT-12	
	Damper, 3 Inch - Tall Vertical Installs Only		PEL-DAMP3	**Y**
	Damper, 4 Inch - Tall Vertical Installs Only		PEL-DAMP4	
	Log Set		LOGS-30-OE	
	Log Rear, Left		7050-144	
	Log Rear, Right		7050-143	
	Outside Air Kit, Rear		811-0872	
	Channel, Air Intake		413-7040	
	Cover, Outside Air Kit, Floor		411-1071	
	Hose, Alum Flex, 2 Inch x 3 Ft	3 Ft	200-0860	
	Outside Air Cap Assembly		7001-044	
	Outside Air Collar Assembly		7001-045	
	Trim Plate, Outside Air Kit		412-7100	
	Surround Trim Assembly 43 X 31	Black	TRIMKIT-4331-BK	
		Gold	TRIMKIT-4331-GD	
		Nickel	TRIMKIT-4331-NL	
	Surround Trim Assembly 51 X 34	Black	TRIMKIT-5134-BK	
		Gold	TRIMKIT-5134-GD	
		Nickel	TRIMKIT-5134-NL	

Additional service part numbers appear on following page.

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ITEM	DESCRIPTION	COMMENTS	PART NUMBER	Stocked at Depot
	Surround, Basic, Large		SP-CSTLI5134	
	Component Pack		SRV7022-055	
	Surround, Basic, Standard		SP-CSTLI4331	
	Component Pack		SRV7022-055	
	Surround, Standard	Use With Cast Trim	SP-CSTLI4230-CM	
	Component Pack		SRV7022-054	
	Surround, Standard	Use With Cast Trim	SP-CSTLI4834-CM	
	Thermostat, Mechanical		812-3760	**Y**
	Thermostat, Programmable		811-0520	
	Trim Cast	Matte Black	811-0930	
	Footer, Left		414-7090MBK	
	Footer, Right		414-7100MBK	
	Header		414-7110MBK	
	Trim Leg, Left		414-7120MBK	
	Trim Leg, Right		414-7130MBK	
	Trim Cast	Mahogany	811-0960	
	Footer, Left		414-7090PMH	
	Footer, Right		414-7100PMH	
	Header		414-7110PMH	
	Trim Leg, Left		414-7120PMH	
	Trim Leg, Right		414-7130PMH	
	Trim Cast	Sienna Bronze	TR-CAST-CSB	
	Footer, Left		414-7090CSB	
	Footer, Right		414-7100CSB	
	Header		414-7110CSB	
	Trim Leg, Left		414-7120CSB	
	Trim Leg, Right		414-7130CSB	
	Trim Cast	Willow	TR-CAST-CWL	
	Footer, Left		414-7090CWL	
	Footer, Right		414-7100CWL	
	Header		414-7110CWL	
	Trim Leg, Left		414-7120CWL	
	Trim Leg, Right		414-7130CWL	
	Trim Support, adjustable (standard panel surround only)	Zero Clearance	811-0980	

Additional service part numbers appear on following page.

IMPORTANT: THIS IS DATED INFORMATION. When requesting service or replacement parts for your appliance please provide model number and serial number. All parts listed in this manual may be ordered from an authorized dealer.

ITEM	DESCRIPTION	COMMENTS	PART NUMBER	Stocked at Depot
	FASTENERS			
	Avk Rivnut Repair Kit		RIVNUT-REPAIR	**Y**
	Bolt, Hex Head, 1/4-20 X 1	Pkg of 10	25221A/10	**Y**
	Bumper, Rubber	Pkg of 12	SRV224-0340/12	**Y**
	Leveling Bolt	Pkg of 25	220-0080/25	**Y**
	Nut, Capped, Push, 1/4	Pkg of 24	7000-157/24	**Y**
	Nut, Ser Flange Small 1/4-20	Pkg of 24	226-0130/24	**Y**
	Nut, Wing, 8-32	Pkg of 24	226-0160/24	**Y**
	Screw Flat Head 1/4-20	Pkg of 24	7000-130/24	**Y**
	Screw, 1/4-20X3/8 Phillips Button Head	Pkg of 24	7000-401/24	**Y**
	Screw, Flat Head Philips 8-32X1/2	Pkg of 12	220-0490/12	**Y**
	Screw, Machine Screw 1/4-20X5/8	Pkg of 24	220-0440/24	**Y**
	Screw, Pan Head Philips 8-32 X 3/8	Pkg of 40	225-0500/40	**Y**
	Screw, Pan Head Philips Tc 8-32X1/2	Pkg of 25	220-0030/25	**Y**
	Screw, Pan Head Philips, 10/32 X 1/4	Pkg of 24	229-1230/24	**Y**
	Screw, Sheet Metal #8 X 1/2 S-Grip	Pkg of 40	12460/40	**Y**
	Speed Nut 5/16	Pkg of 24	7000-422/24	**Y**
	Thumb Screw, 1/4-20 X 1/2	Pkg of 10	7000-617/10	**Y**
	Washer, 1/4 Sae	Pkg of 24	28758/24	**Y**
	Wing Thumb Screw 8-32X1/2	Pkg of 24	7000-223/24	**Y**

E. Service And Maintenance Log

Date of Service	Performed By	Description of Service

E. Service And Maintenance Log (Cont'd)

Date of Service	Performed By	Description of Service

F. Homeowner's Notes

Hearth & Home Technologies Inc.
LIMITED LIFETIME WARRANTY

Hearth & Home Technologies Inc., on behalf of its hearth brands ("HHT"), extends the following warranty for HHT gas, wood, pellet, coal and electric hearth appliances that are purchased from an HHT authorized dealer.

WARRANTY COVERAGE:

HHT warrants to the original owner of the HHT appliance at the site of installation, and to any transferee taking ownership of the appliance at the site of installation within two years following the date of original purchase, that the HHT appliance will be free from defects in materials and workmanship at the time of manufacture. After installation, if covered components manufactured by HHT are found to be defective in materials or workmanship during the applicable warranty period, HHT will, at its option, repair or replace the covered components. HHT, at its own discretion, may fully discharge all of its obligations under such warranties by replacing the product itself or refunding the verified purchase price of the product itself. The maximum amount recoverable under this warranty is limited to the purchase price of the product. This warranty is subject to conditions, exclusions and limitations as described below.

WARRANTY PERIOD:

Warranty coverage begins on the date of original purchase. In the case of new home construction, warranty coverage begins on the date of first occupancy of the dwelling or six months after the sale of the product by an independent, authorized HHT dealer/ distributor, whichever occurs earlier. The warranty shall commence no later than 24 months following the date of product shipment from HHT, regardless of the installation or occupancy date. The warranty period for parts and labor for covered components is produced in the following table.

The term "Limited Lifetime" in the table below is defined as: 20 years from the beginning date of warranty coverage for gas appliances, and 10 years from the beginning date of warranty coverage for wood, pellet, and coal appliances. These time periods reflect the minimum expected useful lives of the designated components under normal operating conditions.

Warranty Period		HHT Manufactured Appliances and Venting							Components Covered
Parts	Labor	Gas	Wood	Pellet	EPA Wood	Coal	Electric	Venting	
1 Year		X	X	X	X	X	X	X	All parts and material except as covered by Conditions, Exclusions, and Limitations listed
2 years				X	X	X			Igniters, electronic components, and glass
		X	X	X	X	X			Factory-installed blowers
			X						Molded refractory panels
3 years				X					Firepots and burnpots
5 years	1 year			X	X				Castings and baffles
7 years	3 years		X	X	X				Manifold tubes, HHT chimney and termination
10 years	1 year	X							Burners, logs and refractory
Limited Lifetime	3 years	X	X	X	X	X			Firebox and heat exchanger
90 Days		X	X	X	X	X	X	X	All replacement parts beyond warranty period

See conditions, exclusions, and limitations on next page.

WARRANTY CONDITIONS:

- This warranty only covers HHT appliances that are purchased through an HHT authorized dealer or distributor. A list of HHT authorized dealers is available on the HHT branded websites.
- This warranty is only valid while the HHT appliance remains at the site of original installation.
- Contact your installing dealer for warranty service. If the installing dealer is unable to provide necessary parts, contact the nearest HHT authorized dealer or supplier. Additional service fees may apply if you are seeking warranty service from a dealer other than the dealer from whom you originally purchased the product.
- Check with your dealer in advance for any costs to you when arranging a warranty call. Travel and shipping charges for parts are not covered by this warranty.

WARRANTY EXCLUSIONS:

This warranty does not cover the following:

- Changes in surface finishes as a result of normal use. As a heating appliance, some changes in color of interior and exterior surface finishes may occur. This is not a flaw and is not covered under warranty.
- Damage to printed, plated, or enameled surfaces caused by fingerprints, accidents, misuse, scratches, melted items, or other external sources and residues left on the plated surfaces from the use of abrasive cleaners or polishes.
- Repair or replacement of parts that are subject to normal wear and tear during the warranty period. These parts include: paint, wood, pellet and coal gaskets, firebricks, grates, flame guides, light bulbs, batteries and the discoloration of glass.
- Minor expansion, contraction, or movement of certain parts causing noise. These conditions are normal and complaints related to this noise are not covered by this warranty.
- Damages resulting from: (1) failure to install, operate, or maintain the appliance in accordance with the installation instructions, operating instructions, and listing agent identification label furnished with the appliance; (2) failure to install the appliance in accordance with local building codes; (3) shipping or improper handling; (4) improper operation, abuse, misuse, continued operation with damaged, corroded or failed components, accident, or improperly/incorrectly performed repairs; (5) environmental conditions, inadequate ventilation, negative pressure, or drafting caused by tightly sealed constructions, insufficient make-up air supply, or handling devices such as exhaust fans or forced air furnaces or other such causes; (6) use of fuels other than those specified in the operating instructions; (7) installation or use of components not supplied with the appliance or any other components not expressly authorized and approved by HHT; (8) modification of the appliance not expressly authorized and approved by HHT in writing; and/or (9) interruptions or fluctuations of electrical power supply to the appliance.
- Non-HHT venting components, hearth components or other accessories used in conjunction with the appliance.
- Any part of a pre-existing fireplace system in which an insert or a decorative gas appliance is installed.
- HHT's obligation under this warranty does not extend to the appliance's capability to heat the desired space. Information is provided to assist the consumer and the dealer in selecting the proper appliance for the application. Consideration must be given to appliance location and configuration, environmental conditions, insulation and air tightness of the structure.

This warranty is void if:

- The appliance has been over-fired or operated in atmospheres contaminated by chlorine, fluorine, or other damaging chemicals. Over-firing can be identified by, but not limited to, warped plates or tubes, rust colored cast iron, bubbling, cracking and discoloration of steel or enamel finishes.
- The appliance is subjected to prolonged periods of dampness or condensation.
- There is any damage to the appliance or other components due to water or weather damage which is the result of, but not limited to, improper chimney or venting installation.

LIMITATIONS OF LIABILITY:

- The owner's exclusive remedy and HHT's sole obligation under this warranty, under any other warranty, express or implied, or in contract, tort or otherwise, shall be limited to replacement, repair, or refund, as specified above. In no event will HHT be liable for any incidental or consequential damages caused by defects in the appliance. Some states do not allow exclusions or limitation of incidental or consequential damages, so these limitations may not apply to you. This warranty gives you specific rights; you may also have other rights, which vary from state to state. EXCEPT TO THE EXTENT PROVIDED BY LAW, HHT MAKES NO EXPRESS WARRANTIES OTHER THAN THE WARRANTY SPECIFIED HEREIN. THE DURATION OF ANY IMPLIED WARRANTY IS LIMITED TO DURATION OF THE EXPRESSED WARRANTY SPECIFIED ABOVE.

QUADRA-FIRE®

CONTACT INFORMATION:

Hearth & Home Technologies
1445 North Highway
Colville, WA 99114
Division of HNI INDUSTRIES
www.quadrafire.com

Please contact your Quadra-Fire dealer with any questions or concerns.
For the number of your nearest Quadra-Fire dealer
visit our website at *www.quadrafire.com*

NOTICE

DO NOT DISCARD THIS MANUAL

- Important operating and maintenance instructions included.
- Read, understand and follow these instructions for safe installation and operation.
- Leave this manual with party responsible for use and operation.

We recommend that you record the following pertinent information for your CASTILE PELLET INSERT

Date purchased/installed: _____

Serial Number: _____ Location on appliance: _____

Dealership purchased from: _____ Dealer phone: _____

Notes: _____

_____

_____

This product may be covered by one or more of the following patents: (United States) 6830000 and 5582117 or other U.S. and foreign patents pending.

HEARTH & HOME technologies